

**SOUTH AFRICA
DEMOGRAPHIC
AND HEALTH
SURVEY
1998**

**Preliminary
Report**

Department of Health

Medical Research Council

**Demographic and Health Surveys
Macro International Inc.**

KEY FINDINGS OF THE SURVEY

Mortality rates

Infant mortality rate: 45 per 1000 live births

Under-5 mortality rate: 59 per 1000 live births

Child mortality rate: 15 per 1000 live births

Maternal mortality ratio: 150 per 100,000 births

*Immunisation coverage in children aged 12-23 months (%)

Total: 63

Urban: 67

Non-urban: 60

Male: 65

Female: 62

Percent of children 12-23 months with road-to-health card: 75

Breastfeeding (% of infants)

Exclusive breastfeeding 0-3 months: 10

Not breastfed 0-3 months: 17

Knowledge of HIV/AIDS (% of women 15-49): 97

Perceptions about HIV/AIDS (% of women 15-49)

People can protect themselves from HIV/AIDS by using condoms

True: 87

False: 7

People can protect themselves from HIV/AIDS by avoiding public toilets

True: 24

False: 65

Condom use (% of sexually active women 15-49)

Ever used condom: 22

Used condom at last sex: 8

Total fertility rate: 2.9 children per woman

****Contraceptive prevalence (%):** 61

Treatment of women (%)

Ever abused by partner: 13

Abused when pregnant: 4

Ever raped: 4

Antenatal care from doctor/nurse (% of births): 94

Assistance during delivery (% of births in last 5 years)

Doctor: 30

Nurse/midwife: 54

Smoking rate (% of adults age 15+)

All adults: 24

Men: 42

Women: 11

Adolescents age 15-19: 10

Reported asthma prevalence (% of adults age 15+):

Men: 7

Women: 9

Prevalence of hypertension (% of adults age 15+)

Men: 11

Women: 13

Percentage of hypertensives who were controlled

Men: 9

Women: 23

Overweight (% of adults age 15+)

Men: 29

Women: 55

Obesity (% of adults age 15+)

Men: 9

Women: 29

* Childhood immunisation coverage is the percentage of children aged 12-23 months who have received BCG, three doses of DPT and polio, and measles vaccines.

** Contraceptive prevalence refers to the percentage of all sexually active women age 15-49 who are using a modern contraceptive method.

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FOREWORD

The 1998 South African Demographic and Health Survey (SADHS) is the first survey of its kind to be carried out in South Africa since the 1994 democratic national elections. The 1998 SADHS collected information on adult health conditions; sexual, reproductive and women's health; maternal and child health; adult, maternal, child and infant mortality; fertility and contraceptive use. Preparations for the study started in 1995 and the fieldwork was carried out between late January and September 1998.

This report presents preliminary findings from the 1998 SADHS. It provides the results for key maternal and child health indicators including medical care for mothers during pregnancy and at the time of delivery, infant feeding practices, child immunisation coverage and the prevalence and treatment of diarrhoeal disease among children. It also provides information on women's status, fertility levels, contraceptive knowledge and use and adult health conditions. More detailed results will be presented in the final report which will be published towards the end of 1999.

The information collected in the SADHS will be instrumental in identifying new directions for the national and provincial health programmes in South Africa. Data such as fertility levels, prevalence and treatment of chronic health conditions, and infant mortality levels are crucial indicators in evaluating policies and programmes and in making projections for the future. In addition, as one of more than 100 surveys carried out in the international Demographic and Health Surveys programme, it will hopefully contribute to an increased global commitment to improving the lives of mothers and children worldwide.

I am deeply indebted and grateful to all those who contributed to the success of the 1998 SADHS and to their efforts in making the information available. I wish to express my thanks to the staff of the National and Provincial Departments of Health for making the SADHS possible, the Medical Research Council, Macro International and USAID for financial support of the MRC's contribution. I would also like to thank members of the management committee, technical advisers, project technical committee, the Centre for Health Systems Research at the Free State University, the field staff, the data processing team, and, of course, the survey respondents for ensuring that the fieldwork, data processing and analyses and report writing were carried out smoothly.

Minister of Health
Date:

ACKNOWLEDGEMENTS

The 1998 SADHS is a project which was initiated and primarily funded by the Department of Health. In its implementation several organisations and numerous individuals put a great deal of effort into ensuring that the project was conducted to the best of our abilities. In the first instance, I wish to express my gratitude to the National Health Information Systems Committee colleagues in the Provincial Departments of Health and the National Department of Health for the various roles they played in the course of this project.

I would like to use this opportunity to thank the staff of the Medical Research Council (MRC) for their role in coordinating the design of the survey and the sample, the questionnaire development and pilot testing, writing supervisors' and interviewers' manuals, and data processing. The MRC also played an important role in organising the field staff training, monitoring fieldwork and drafting reports. My special thanks in this regard goes to Dr Debbie Bradshaw for ensuring the smooth co-ordination of the fieldwork by the MRC.

My thanks also goes to the Centre for Health Systems Research and Development at the University of Free State in partnership with King Finance for implementing the fieldwork. Let me also use this opportunity to express my gratitude to the Human Sciences Research Council for their assistance in the survey planning and design, as well as in the training, fieldwork monitoring, analysis and report writing and to Statistics South Africa, for their assistance with drawing up the sample. Many thanks to Macro International Inc. of Calverton, Maryland for providing technical assistance to the project as part of its international Demographic and Health Surveys program, and the United States Agency for International Development (USAID)/South Africa for paying for the technical assistance to the project.

I would like to express my sincere appreciation to the members of the project management committee, the project technical team and all the technical consultants to the project for their contributions to the project.

I would like to thank Mrs Golda Chimere-Dan (Coordinator of the SADHS in the Department of Health) Ms Nolwazi Mbananga (SADHS Coordinator), and Ms Annie Cross (Macro International) for their effort in producing this preliminary report on time. Finally, thanks go to Dr L E Makubalo for directing the SADHS project.

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I. BACKGROUND

A. Introduction

Following the 1994 democratic elections in South Africa, the Health Department was tasked with the challenges of redressing the unequal distribution of health care and ensuring that health policy and legislation are consistent with the objectives of achieving greater access and better quality of care and other health benefits for all South Africans. In the last four years numerous policies and strategies in the areas of child health, maternal health, adult health, health care financing, and access to preventive and promotive health, to name a few, have been put in place. Implementation of many of these strategies has been met with numerous challenges. A major constraint in the planning and restructuring process has been the paucity of reliable basic health data on the majority of the population for monitoring progress.

The National Health Information System of South Africa Committee of the Department of Health was therefore tasked with the implementation of the 1998 South Africa Demographic and Health Survey (SADHS) which was designed to meet the information needs for effective implementation of services and planning and in some instances will already begin to give indications on successes as well as shortcomings of some of the ongoing programmes. The SADHS was a national-level sample survey designed to provide information on various demographic and maternal, child, and adult health indicators in South Africa. This report presents the preliminary results for some of the principal topics covered in the survey. A more comprehensive and detailed report is scheduled to be published in mid-1999. The final figures are not expected to differ substantially from the findings presented in this preliminary report; however, the results presented here should be regarded as provisional and subject to modification.

B. Survey Objectives

The primary objective of the SADHS is to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness and use of contraceptive methods; breastfeeding practices; maternal and child health; awareness of HIV/AIDS; chronic health conditions among adults; dental health; and habits of lifestyle that affect the health status of adults. In addition, various anthropometric indicators such as height, weight, blood pressure and pulmonary flow were measured for adults. The survey results are intended to assist policymakers and program managers in evaluating and designing programs and strategies for improving health services in the country.

C. Sample Design

The 1998 SADHS employed a nationally-representative, two-stage sample that was selected from the 1996 census data. The first stage consisted of selecting census enumeration areas (EAs) with probability proportional to size based on the number of households residing in the EA according to the preliminary census results. Each of the nine provinces was stratified into urban and non-urban groups. A total of 972 primary sampling units was selected for the SADHS (690 in urban areas and 282 in non-urban areas). Fieldwork in three sample points was not implemented and the questionnaires for another three sample points were lost in transit, so the data file contains information for a total of 966 points.

Three objectives of the SADHS caused the sample design to be non-self-weighting. The first objective was to provide separate survey estimates for each province. A second objective was to provide estimates for racial groupings separately, insofar as possible. Finally, USAID/South Africa provided additional funding to increase the sample size in Eastern Cape Province to allow separate survey results to be produced for each of the five health regions. These three objectives resulted in an increase in the sampling rate for smaller provinces such as Northern Cape and Free State, as well as for Eastern Cape. In order to try to increase the number of Indian/Asian households selected, the sampling rate for urban areas in Gauteng and KwaZulu-Natal Provinces was also increased relative to the overall rate. Thus, the SADHS sample is not self-weighting and weighting factors have been applied to the data in this report. Due to the confidentiality of the census data, sampling experts at Statistics South Africa selected the primary sampling units, in this case, the 1996 census enumeration areas (EAs) according to the specifications developed. In about half of the selected EAs, Statistics South Africa also provided lists of

the names and in some cases, addresses, of the households. In these cases, staff at the Medical Research Council selected the specific households to be interviewed. In the other selected EAs, only maps were provided, some of which showed individual plots and others not. In such cases, field teams were instructed to systematically select the appropriate number of households based on strict criteria. In urban EAs, ten households were selected, while in non-urban areas, 20 households were selected. This resulted in a total of 12,540 households being selected throughout the country. Every second household was selected for the adult health survey, meaning that, in addition to interviewing all women age 15-49, interviewers also interviewed all adults age 15 and over. It was expected that the sample would yield interviews with approximately 12,000 women age 15-49 and 13,500 adults. In total, approximately 17,500 people were interviewed.

D. Questionnaires

Three types of questionnaires were used for the SADHS: a Household Questionnaire, a Woman's Questionnaire, and an Adult Health Questionnaire. The contents of the first two questionnaires were based on the DHS Model Questionnaires. These model questionnaires were adapted for use in South Africa during a series of meetings with a Project Team that consisted of representatives from the National and Provincial Departments of Health, the MRC, the Human Sciences Research Council, Statistics South Africa and Macro International. Several additional organisations were represented on a larger Steering Committee that reviewed the draft questionnaires, namely: the National Population Unit of the Department of Welfare and Population, the Development Bank of Southern Africa, the United Nations Population Fund (UNFPA), the Reproductive Health Research Unit of the University of the Witwatersrand, and USAID. Draft questionnaires were then circulated to other interested groups. The questionnaires were developed in English and then translated into and printed in all 11 official languages in South Africa (English, Afrikaans, Xhosa, Zulu, Sotho, Tswana, Sepedi, Swati, Tshivenda, Zitsonga, and Ndebele).

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women and adults who were eligible for individual interview. In addition, information was collected about the dwelling itself, such as the source of water, type of toilet facilities, materials used to construct the house, and ownership of various consumer goods.

The Woman's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- Background characteristics (age, education, race, residence, marital status, etc.)
- Reproductive history
- Knowledge and use of contraceptive methods
- Antenatal and delivery care
- Breastfeeding and weaning practices
- Child health and immunisation
- Marriage and recent sexual activity
- Fertility preferences
- Violence against women
- Knowledge of HIV/AIDS
- Maternal mortality
- Husband's background and respondent's work.

In every second household, all men and women age 15 and over were eligible to be interviewed with the Adult Health Questionnaire. The respondents were asked questions on:

- Recent utilisation of health services

- Family medical history
- Clinical conditions
- Dental health
- Occupational health
- Medications taken
- Habits and lifestyle
- Anthropometric measurements (height, weight, blood pressure, etc.).

E. Training and Fieldwork

The SADHS questionnaires were pretested in November/December 1996 under contract with a private research firm, Markinor. Sixteen female interviewers, most of whom were part of Markinor's regular pool of interviewers, were trained by two MRC staff for 10 days at Markinor headquarters in Randburg. After training, teams conducted interviews in several provinces under the observation of staff from MRC and Macro. Areas were specifically chosen in order to test the questionnaires in all the major ethnic groups and in several languages. The approximately 150 pretest interviews completed provided a wealth of invaluable information regarding length of interview, response rates, questionnaire design, cost implications, and survey procedures, which were discussed during the debriefing session with field staff. Based on observations in the field and suggestions made by the pretest field teams, the Project Team made revisions in the wording and translations of the questionnaires.

In mid-1997, the field work group, the University of Free State, recruited 175 candidates for involvement in the field work. Participation was based on appropriateness with regard to several areas including education, maturity, field experience, and languages spoken.

Training was done in two phases. During the first four days, editors, supervisors, provincial managers and representatives of provincial Health Departments were given an overview of the content of the questionnaires and the objectives and design of the survey, as well as a brief training on editing questionnaires. They also carried out a field practice exercise on the Household Questionnaire during this week. During the second week, the interviewers joined the editors, supervisors, provincial managers and health representatives for more detailed training on the questionnaires. This was followed by a third week of field practice and discussions.

The training was conducted by personnel from the MRC, the Human Sciences Research Council, Free State University and Macro International. Training consisted of plenary sessions on more general issues like contraceptive methods, conducted for the whole group in one venue and more specific discussions by sections for each of the nine provinces, in separate venues. There was also intensive training in anthropometric measurements, taking blood pressure and measuring lung capacity.

Due to the large number of trainees and the short time allowed for training, arrangements were made to hold an additional day of field practice after teams returned to their respective provinces. Trainers were assigned to each province to oversee the field practice and to monitor the first few days of fieldwork.

Fieldwork for the SADHS was carried out by 33 interviewing teams. Each province had three teams, with the exception of Eastern Cape, where there were seven teams and KwaZulu-Natal which had five teams. Each team consisted of 2-5 female interviewers, a supervisor, and a field editor. In each province there was a provincial manager who was an overall supervisor of the fieldwork operations. In addition, two fieldwork coordinators based at the Free State University provided logistical and management support for the field operations. In many provinces, staff from the provincial Department of Health offices who had attended the training course formed fieldwork quality control teams to check on the field teams and conduct revisits. Finally, staff from MRC, HSRC and Macro International conducted periodic quality control visits during fieldwork. Fieldwork commenced in late January 1998 and was completed in September 1998.

F. Data Processing

All completed questionnaires for the SADHS were submitted to the provincial offices of King Finance (which was in partnership with Free State University), which then forwarded them to the MRC for data processing. The processing operation consisted of office editing, coding of open-ended questions, initial data entry and subsequent re-entry of all questionnaires to ensure correct capturing of data, and editing of inconsistencies found by the computer programs. The SADHS data entry and editing programs were written in ISSA (Integrated System for Survey Analysis) by staff of Macro International. Data processing commenced in mid-March 1998 and was completed in October 1998.

G. Coverage of the Sample

Table 1 shows response rates for the survey and reasons for non-response. A total of 12,860 households was selected for the sample, of which 12,247 were successfully interviewed. The shortfall is primarily due to refusals and to dwellings that were vacant or in which the inhabitants had left for an extended period at the time they were visited by the interviewing teams. Of the 12,638 households occupied, 97 percent were successfully interviewed. In these households, 12,327 women were identified as eligible for the individual women's interview (i.e., age 15-49) and interviews were completed with 11,735 or 95 percent of them. In the one half of the households that were selected for inclusion in the adult health survey, 14,928 eligible adults age 15 and over were identified, of which 13,827 or 93 percent were interviewed.

The principal reason for non-response among eligible women and men was the failure to find them at home despite repeated visits to the household. Refusals accounted for about two percent.

Table 1 Sample results

Number of households, number of interviews and response rates, South Africa 1998

Result	Number	Percent
Households selected		
Households selected	12860	100.0
Households occupied	12638	98.3
Households absent for extended period	76	0.6
Dwelling vacant/destroyed	146	1.1
Households occupied		
Households occupied	12638	100.0
Households interviewed	12247	96.9
Households not interviewed	391	3.1
Eligible women		
Eligible women	12327	100.0
Women interviewed	11735	95.2
Women not interviewed	592	4.8
Eligible adults		
Eligible adults	14928	100.0
Adults interviewed	13827	92.6
Adults not interviewed	1101	7.4

H. Background Characteristics of Women and Adults

The distribution of women aged 15-49 and adults aged 15 and over interviewed in the 1998 SADHS by selected background characteristics is presented in Table 2. As expected, the proportions decline with age. This is similar to the pattern observed in the 1996 census (Statistics South Africa, 1998).

Just over 60 percent of respondents live in urban areas, according to the definition of urban (within a proclaimed municipality or the boundaries of a local authority) used by Statistics South Africa. This compares with a figure of 54 percent urban for the total population from the 1996 census. Approximately one in five respondents lives in each of Gauteng and KwaZulu-Natal Provinces.

Table 2 Background characteristics of respondents

Percent distribution of women and adults by background characteristics, South Africa 1998

	Women 15-49				Adult men 15+			Adult women 15+		
Background characteristic	Weighted percent	Weighted women	Unwght. women		Weighted percent	Weighted men	Unwght. men	Weighted percent	Weighted women	Unwght. women
Age										
15-19	19.2	2,249	2,373	Age						
20-24	17.7	2,075	2,086	15-24	32.0	1,816	1,844	25.6	2,084	2,102
25-29	15.8	1,857	1,811	25-34	19.8	1,123	1,091	21.1	1,721	1,635
30-34	14.1	1,654	1,616	35-44	17.7	1,005	1,016	17.9	1,460	1,396
35-39	13.9	1,636	1,628	45-54	12.4	701	715	13.7	1,116	1,088
40-44	11.0	1,294	1,255	55-64	9.1	518	529	11.2	914	938
45-49	8.3	970	966	65+	8.9	507	558	10.6	861	915
Residence				Residence						
Urban	60.5	7,095	6,518	Urban	62.9	3,569	3,341	61.3	4,999	4,412
Non-urban	39.5	4,640	5,217	Non-urban	37.1	2,102	2,412	38.7	3,157	3,662
Province				Province						
Western Cape	10.2	1,193	919	Western Cape	12.7	721	545	9.8	799	602
Eastern Cape	13.3	1,566	2,756	Eastern Cape	13.4	758	1,311	14.2	1,161	2,063
Northern Cape	2.2	253	1,041	Northern Cape	2.4	135	560	2.1	168	701
Free State	6.5	763	936	Free State	7.8	444	554	6.4	519	646
KwaZulu Natal	20.1	2,364	1,826	KwaZulu Natal	18.8	1,064	823	19.7	1,608	1,230
North West	7.7	909	931	North West	9.7	551	571	7.9	647	670
Gauteng	21.7	2,552	1,057	Gauteng	19.4	1,099	408	23.1	1,887	704
Mpumalanga	7.0	819	1,131	Mpumalanga	6.7	377	528	6.2	507	713
Northern	11.2	1,316	1,138	Northern	9.2	521	453	10.5	859	745
Education				Education						
No education	6.8	804	810	No education	9.9	562	659	14.5	1,186	1,278
Sub A - Std 3	11.0	1,291	1,359	Sub A - Std 3	13.7	777	824	13.3	1,088	1,156
Std 4 - Std 5	13.8	1,625	1,775	Std 4 - Std 5	13.3	755	835	13.9	1,136	1,215
Std 6 - Std 9	44.2	5,181	5,175	Std 6 - Std 9	40.5	2,297	2,258	37.9	3,094	2,983
Std 10	16.4	1,922	1,754	Std 10	14.1	801	737	13.7	1,120	950
Higher	7.8	912	862	Higher	7.8	440	407	6.1	495	459
Missing	0.0	0	0	Missing	0.7	40	33	0.5	37	33
Population Group				Population Group						
African	77.9	9,147	8,993	African	75.1	4,257	4,283	76.9	6,269	6,174
Afr. urban	41.5	4,873	4,274	Afr. urban	41.9	2,375	2,158	41.1	3,349	2,840
Afr. non-urban	36.4	4,274	4,719	Afr. non-urban	33.2	1,882	2,125	35.8	2,921	3,334
Coloured	10.2	1,201	1,533	Coloured	11.2	637	772	9.9	806	1,008
White	7.8	916	755	White	9.9	564	500	9.4	767	603
Asian	3.5	406	393	Asian	3.4	195	183	3.7	300	279
Missing	0.6	66	61	Missing	0.3	18	15	0.2	14	10
Total	100.0	11,735	11,735	Total	100.0	5,671	5,753	100.0	8,156	8,074

Among women age 15-49, only seven percent have had no formal education at all, while almost one-quarter have matric or higher. As expected, educational attainment of all adults age 15 and over is lower than that of women 15-49, since the respondents include those over age 50. Although adult men in general have reached higher levels of education than adult women, the differentials are not large. For example, 22 percent of adult men have reached the level of matric or higher, compared to 20 percent of adult women.

Just over three-quarters of the SADHS respondents are African, while 10 percent are coloured, 8-9 percent are white and about four percent Asian.

II. CHILD HEALTH

The 1998 SADHS obtained information on a number of key child health indicators, including childhood mortality rates, immunisation of young children, infant feeding practices, and treatment practices when a child has diarrhoea.

A. Infant and Child Mortality

One important objective of the 1998 SADHS was to measure the level and characteristics of mortality among children, since infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life especially as the civil registration system in the country has not yet reached complete coverage. Estimates of childhood mortality are based on information from the pregnancy history section of the questionnaire administered to individual women. The section began with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere and the number who have died). For each of these births, information was then collected on sex, month and year of birth, survivorship status and current age, or, if the child had died, age at death.

This information is used to directly estimate the following five mortality rates:

Neonatal mortality:	the probability of dying within the first month of life;
Postneonatal mortality:	the difference between infant and neonatal mortality;
Infant mortality:	the probability of dying before the first birthday;
Child mortality:	the probability of dying between the first and fifth birthday;
Under-five mortality:	the probability of dying between birth and the fifth birthday.

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age. It is hoped that estimates of peri-natal mortality may be presented in the more detailed final report on the SADHS results.

These rates are shown in Table 3 according to demographic and socio-economic characteristics in the ten-year period preceding the survey. The infant mortality rate was found to be 45 deaths per 1000 live births.¹ This means that about one in every 22 children born in South Africa dies before reaching the first birthday. Table 3 shows that the infant mortality rate is a reflection of the social, demographic and economic conditions in which people live. Where socio-economic conditions are poorer, infant mortality is higher. Thus, rural areas, poorer provinces such as Eastern Cape and Northern Cape, or provinces with large rural populations such as KwaZulu-Natal, experience higher infant mortality rates than others. Similarly, women with none or a low level of education experience higher infant mortality rates. African women, particularly those who live in rural areas also experience higher infant mortality rates than others.

¹ Rates for the country as a whole are based on the five-year period before the survey, while the differentials by demographic and socio-economic characteristics are based on a 10-year period to reduce sampling errors.

Table 3 Infant and child mortality by socioeconomic characteristics

Infant and child mortality rates by selected socioeconomic background characteristics for the ten-year period preceding the survey, South Africa 1998

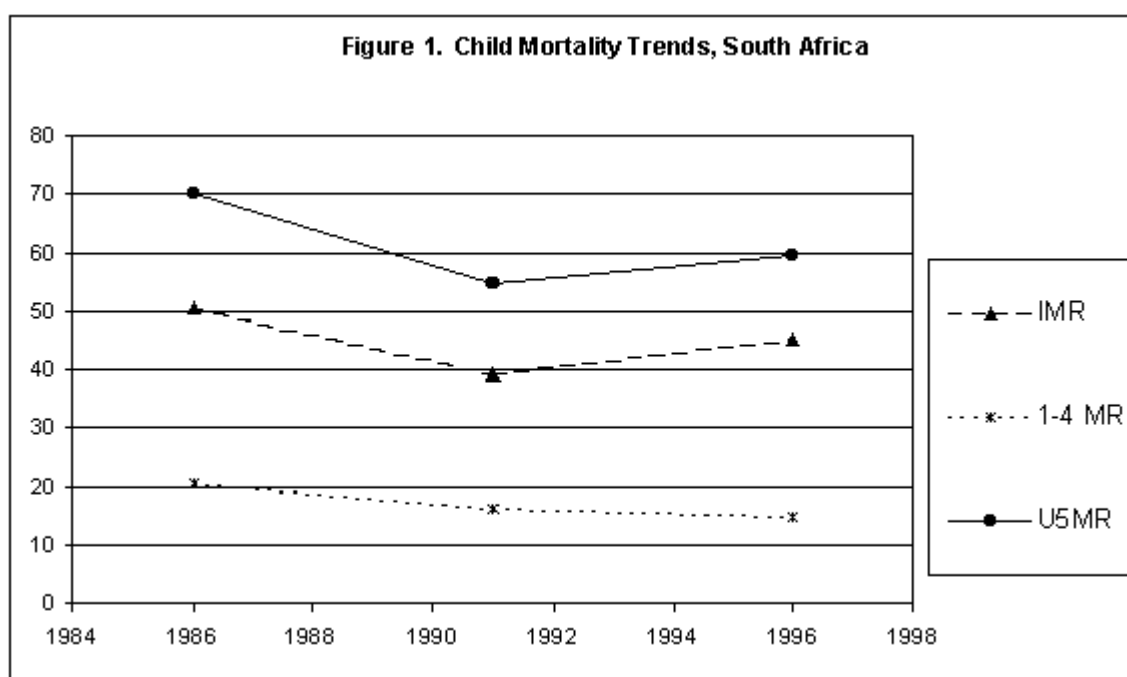
Background characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Urban	16.4	16.2	32.6	11.0	43.2
Non-urban	22.0	30.1	52.2	20.1	71.2
Province					
Western Cape	4.0	4.4	8.4	4.8	13.2
Eastern Cape	24.7	36.5	61.2	20.5	80.5
Northern Cape	20.5	21.3	41.8	14.3	55.5
Free State	9.9	26.9	36.8	13.7	50.0
KwaZulu Natal	23.2	28.9	52.1	23.6	74.5
North West	20.0	16.8	36.8	8.8	45.3
Gauteng	17.8	18.5	36.3	9.3	45.3
Mpumalanga	23.6	23.6	47.3	17.3	63.7
Northern	18.3	18.9	37.2	15.7	52.3
Education					
No education	19.7	39.1	58.8	26.5	83.8
Sub A - Std 3	25.1	28.6	53.7	26.4	78.7
Std 4 - Std 5	19.3	22.3	41.5	14.5	55.4
Std 6 - Std 9	16.5	22.9	39.3	13.8	52.6
Std 10	18.2	12.0	30.2	3.2	33.3
Higher	21.9	7.3	29.3	0.0	29.3
Population Group					
African	20.6	26.5	47.0	17.4	63.6
Afr. urban	18.3	20.4	38.7	12.7	50.9
Afr. non-urban	22.3	31.3	53.6	21.2	73.7
Coloured	9.6	9.2	18.8	9.6	28.2
White	(11.4)	(0.0)	(11.4)	(3.9)	(15.3)
Asian	*	*	*	*	*
Sex of child					
Male	23.7	25.4	49.0	17.7	65.9
Female	14.6	20.7	35.3	13.0	47.9
Mother's age at birth					
Less than 20	20.3	22.3	42.5	19.2	60.9
20-29	19.3	20.9	40.2	14.9	54.5
30-39	18.4	24.1	42.5	13.3	55.2
40-49	(18.2)	(56.3)	(74.5)	(30.2)	(102.5)
Birth order					
1	19.2	21.4	40.6	15.0	55.0
2-3	15.3	17.7	32.9	14.1	46.6
4-6	23.3	26.8	50.1	19.6	68.7
7+	31.2	59.6	90.8	7.4	97.5
Previous birth interval					
< 2 years	35.0	42.0	76.9	25.9	100.8
2-3 years	18.1	20.4	38.5	13.9	51.8
4 years or more	13.7	20.2	33.9	13.1	46.5
Total [†]	19.8	25.6	45.4	14.7	59.4

[†] Rates are for the five years before the survey.

Note: Figures in parentheses are based on 250-500 cases, while an asterisk denotes a figure based on fewer than 250 cases that has been suppressed.

The infant mortality rate is higher among male infants (49) than female infants (35). Infants born to mothers aged between 40 and 49 years have higher chances of dying before their first birthday than those born to younger women aged between 20 and 39 years. Similarly, one in eleven infants born to women with seven or more children dies before age one as compared to one in thirty infants born to women with two or three children. In the same vein, infants born less than two years after a previous birth are more likely to die before their first birthday than those with longer birth intervals. The other measures of childhood mortality follow a similar pattern to the infant mortality rate.

The trend in childhood mortality, based on 5 year averages, are shown in Figure 1. It can be seen that under-five mortality declined until the early 1990's. Since then, the infant mortality rate has shown an upward trend. It is likely that this upward trend is associated with the HIV/AIDS epidemic that is currently underway in South Africa.



B. Childhood Immunisations

In the 1998 SADHS, information on childhood immunisations was collected for all children born during the five-year period before the survey. In South Africa, immunisations are recorded on a child's health card. For each child, mothers were asked whether they had the health card for the child and, if so, to show the card to the interviewer. When the mother was able to show the health card, the dates of vaccinations were copied from the card to the questionnaire. If the health card was not available (or a vaccination was not recorded), mothers were asked questions to determine whether the child had received each vaccine.

The estimates of immunisation coverage among children aged 12-23 months in Table 4 are based on the information taken from the health card and, for those for whom a card was not seen (or a vaccination not recorded), from the information provided by the mother. Mothers were able to provide health cards for 75 percent of the children aged 12-23 months.

The World Health Organisation guidelines for childhood immunisations call for all children to receive: a BCG vaccination against tuberculosis, three doses of the DPT vaccine to prevent diphtheria, pertussis and tetanus; three doses of polio vaccine; and a measles vaccination.

Table 4 shows that a high proportion of South African children between the ages of 12 and 23 months receive immunisation for all these childhood vaccines. However, coverage rates are not consistent and tend to decrease as the dosage increases. Thus, for vaccines that require more than one dose such as polio and DPT, immunisation rates are higher for the first and second doses than for subsequent ones. This reduces full immunisation to 63 percent for all South African children in this age group. Only 2 percent of children 12-23 months of age received no vaccinations.

Looking at differentials in vaccination coverage, the data indicate that although the gap in coverage between urban and non-urban areas has narrowed considerably, children in urban areas are still more likely to receive all the basic immunisations than those in the non-urban areas. Those in Northern Cape and Northern Provinces are somewhat more likely than other children to receive all the basic immunisations. Coverage is higher among children with more educated mothers and also those whose mothers are coloured. Due to the small number of children in some groups, interpretation of data on immunisation coverage should be made cautiously.

C. Childhood Diarrhoea

Dehydration as a result of diarrhoea is a frequent cause of death in young children. The administration of oral rehydration therapy (ORT) is a simple means of countering the effects of dehydration. During ORT, the child is given a solution either prepared by mixing water with the salts in a commercially prepared oral rehydration packet (such as ORS, also called orsaline or paedialite in South Africa) or by making a homemade solution using sugar, salt and water.

In the SADHS, mothers of children under age five were asked if their children had had diarrhoea in the two-week period before the survey. If the child had suffered from diarrhoea, the mother was asked about what she had done to treat the diarrhoea. Since the prevalence of diarrhoea varies seasonally, the results pertain only to the pattern during the period February-September when the SADHS interviews took place.

Table 5 presents information on recent episodes of diarrhoea among young children and the actions that were taken to treat the illness. Overall, 13 percent of children under age five were reported to have had diarrhoea in the two-week period before the survey. As expected, diarrhoea is more prevalent among children age 6-23 months. This pattern is believed to be associated with increased exposure to the illness as a result of both weaning and the greater mobility of the child as well as to the immature immune system of children in this age group.

Half of the children with diarrhoea were given fluid made from an ORS packet and less than one-fifth were given a homemade sugar, salt, and water solution. Altogether, 58 percent of children with diarrhoea were treated with some type of oral rehydration therapy, mostly with ORS packet solution. Differentials in ORT treatment are not large and some may be due to the small numbers of children who had diarrhoea in the two weeks prior to the survey.

Table 4 Vaccinations by background characteristics

Among children age 12-23 months, percentage with health cards seen by interviewer and percentage who have received each vaccine by the time of the survey (according to the vaccination card or mother), by background characteristics, South Africa 1998

Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Hep B1	Hep B2	Hep B3	Mea-sles	All ¹	None	Percent with card	No. of children
Sex of child																
Male	96.9	91.3	84.1	74.3	90.2	90.8	81.6	71.5	88.2	80.9	72.5	83.7	64.7	2.3	75.9	468
Female	96.7	95.1	88.1	78.3	92.1	91.3	83.7	72.7	88.2	83.2	75.2	80.8	62.2	2.0	73.3	505
Birth order																
1	96.7	94.4	86.6	78.5	92.7	91.0	83.0	73.8	87.7	82.8	76.9	84.9	66.7	2.3	74.6	336
2-3	97.5	93.8	89.0	79.0	92.9	90.8	83.1	73.0	89.6	85.0	74.5	81.5	64.3	1.5	77.3	370
4-5	97.9	94.2	85.2	74.1	86.3	93.6	85.3	73.5	88.7	79.8	73.9	85.3	66.2	0.4	73.5	165
6+	92.7	86.4	76.3	63.8	88.2	88.2	76.0	60.8	84.0	72.6	62.0	71.0	44.6	7.1	66.5	103
Residence																
Urban	98.0	95.8	89.5	81.7	94.4	92.0	85.3	75.5	90.1	84.5	78.3	85.1	67.1	1.6	75.3	491
Non-urban	95.6	90.8	82.8	71.0	87.9	90.0	80.0	68.6	86.2	79.6	69.5	79.3	59.6	2.7	73.8	483
Province																
Western Cape	98.3	95.3	85.8	74.2	95.7	91.7	77.3	72.5	84.1	75.8	72.5	83.7	64.2	0.0	75.8	80
Eastern Cape	95.6	90.8	81.1	68.1	89.3	86.9	76.5	61.3	80.4	70.9	61.7	75.4	52.6	3.1	68.1	127
Northern Cape	97.5	93.9	90.2	89.0	97.5	92.7	89.0	85.5	94.0	89.0	86.6	90.5	80.8	1.3	87.8	20
Free State	95.1	96.9	93.8	82.1	95.2	96.9	85.6	72.6	87.0	83.8	73.9	80.8	67.8	1.6	75.6	51
KwaZulu-Natal	97.0	90.6	80.9	62.3	87.3	87.7	77.5	59.6	85.4	78.2	62.0	82.5	49.5	2.0	62.2	208
North West	95.7	89.8	82.2	82.2	83.8	91.2	80.7	70.8	89.8	80.7	79.3	87.0	60.6	4.3	66.5	67
Gauteng	97.6	96.4	91.6	85.6	95.2	92.8	88.0	80.8	94.0	90.4	83.2	84.4	72.4	2.4	79.6	199
Mpumalanga	96.4	92.7	88.5	77.7	91.8	90.3	86.7	75.9	87.6	83.7	75.9	83.7	67.2	2.7	79.5	72
Northern	96.9	94.5	88.3	85.1	91.4	94.5	88.3	83.6	92.2	87.5	84.3	80.4	74.9	1.6	89.0	149
Education																
None	92.5	89.9	80.9	65.8	85.0	87.2	75.8	65.8	87.1	79.6	64.4	64.0	54.0	7.5	78.2	78
Sub A - Std	94.5	92.5	83.6	66.6	86.0	92.1	82.8	62.4	85.6	79.1	66.7	82.2	50.6	2.2	67.2	124
Std 4 - Std	96.4	92.8	86.8	75.3	88.7	92.1	84.5	73.4	90.6	81.4	72.6	78.0	61.6	1.7	78.2	153
Std 6 - Std	97.6	92.9	84.7	76.6	94.4	88.7	79.4	71.4	86.7	81.4	75.0	85.0	65.6	1.7	73.1	407
Std 10	98.1	96.2	90.6	86.3	92.4	94.0	87.2	80.0	90.6	85.1	79.9	88.4	72.5	1.9	76.4	156
Higher	100.0	96.0	96.0	87.4	91.8	100.0	99.1	82.0	93.0	90.2	82.8	82.0	68.3	0.0	81.6	55
Population Group																
African	96.2	92.7	85.7	75.5	90.4	90.6	81.9	71.2	87.1	81.3	72.7	81.4	61.8	2.5	73.7	815
Afr. urban	97.2	95.4	89.5	81.9	93.4	92.0	84.5	75.2	88.2	83.5	77.7	85.3	66.0	2.2	73.8	362
Afr. non-urban	95.5	90.6	82.7	70.3	88.0	89.5	79.7	68.0	86.2	79.5	68.7	78.2	58.4	2.8	73.6	453
Coloured	99.4	93.7	85.1	80.7	94.9	89.4	86.3	79.0	91.9	84.1	80.4	85.8	74.6	0.3	82.4	91
White	(100.0)	(100.0)	(92.0)	(78.6)	(98.4)	(100.0)	(86.6)	(70.2)	(94.3)	(89.8)	(76.1)	(85.2)	(62.7)	(0.0)	(72.0)	42
Asian	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21
Total	96.8	93.3	86.2	76.4	91.2	91.0	82.7	72.1	88.2	82.1	73.9	82.2	63.4	2.2	74.6	973

Note: Total includes 4 children with population group not stated. Figures in parentheses are based on 25-49 unweighted cases; an asterisk indicates a figure based on fewer than 25 cases that has been suppressed.

¹ "All" means a child has received BCG, 3 doses of DPT and polio, and measles, but not necessarily hepatitis B.

Table 5 Prevalence of diarrhoea and use of oral rehydration therapy

Among children under 5 years of age, the percentage reported by the mother to have had diarrhoea in the past two weeks, and of those with diarrhoea, the percent who were given ORS or home solution by background characteristics, South Africa 1998

Background characteristic	Percentage of children with diarrhoea	Diarrhoea treatment			
		% ORS packets	% Home solution	% Any ORT	Children under 5 (n)
Age of child					
< 6 months	11.1	47.6	12.3	56.7	505
6-11 months	22.1	57.1	14.2	64.9	500
12-23 months	24.0	54.5	17.1	60.0	973
24-35 months	11.6	47.1	17.8	57.2	933
36-47 months	8.2	39.1	10.1	44.1	886
48-59 months	5.0	53.7	24.5	61.4	942
Sex of child					
Male	14.1	50.2	15.0	58.2	2,370
Female	12.3	52.4	17.2	58.5	2,369
Residence					
Urban	10.8	48.8	16.8	55.3	2,374
Non-urban	15.7	52.8	15.5	60.4	2,366
Province					
Western Cape	9.9	(44.5)	(10.1)	(51.2)	396
Eastern Cape	12.7	54.6	13.1	58.8	690
Northern Cape	10.4	(46.5)	(14.9)	(54.1)	97
Free State	9.1	(55.2)	(26.3)	(66.3)	244
KwaZulu Natal	17.8	64.8	16.4	70.5	1,022
North West	12.2	55.6	5.0	55.6	327
Gauteng	9.4	47.2	16.7	55.6	911
Mpumalanga	16.2	45.1	24.0	57.6	361
Northern	14.6	31.0	17.2	41.3	691
Education					
No education	13.5	55.2	20.8	63.0	418
Sub A - Std 3	17.8	44.6	19.2	57.1	605
Std 4 - Std 5	14.0	50.6	14.3	55.9	708
Std 6 - Std 9	13.3	53.4	13.8	59.6	1,950
Std 10	10.3	50.0	18.7	56.0	733
Higher	9.0	(53.2)	(13.8)	(57.0)	325
Population Group					
African	14.2	52.1	16.6	59.4	3,920
Afr. urban	12.0	50.9	17.8	57.8	1,702
Afr. non-urban	15.9	52.7	15.9	60.3	2,218
Coloured	11.5	46.9	12.1	55.5	435
White	5.3	*	*	*	245
Asian	6.5	*	*	*	111
Total	13.2	51.2	16.0	58.4	4,740

Note: Total includes 29 children with ethnic group not stated. Numbers in parentheses refer to figures based on 25-49 cases, while an asterisk indicates a figure based on fewer than 25 cases that has been suppressed

D. Breastfeeding and Supplementation

Breast milk is the optimal source of nutrients for infants. Children who are exclusively breastfed receive only breast milk. In South Africa, exclusive breastfeeding is recommended from birth to the first 4-6 months of a child's life because it limits exposure to disease agents as well as providing all of the nutrients that a baby requires.

Breastfeeding among South African women is very low and supplementation of breast milk with other liquids and foods begins early. Table 6 shows that of all children aged 0-3 months, only 10 percent receive exclusive breastfeeding, while about half of them are bottle-fed. And among those 4-6 months old, less than two percent are exclusively breastfed, but more than one-third are bottle-fed.

Table 6 Breastfeeding and supplementation

Percent distribution of living children by breastfeeding status, food supplementation and use of a bottle with a nipple according to age, South Africa 1998

Age of child	Not breastfed	Breast only	Breastmilk and:			Total	Bottle fed	Living children
			Plain water	Other liquids	Solid or mushy food			
0-3 months	16.6	10.4	8.9	48.5	15.6	100.0	48.3	312
4-6 months	20.1	1.2	2.2	40.0	36.5	100.0	37.5	268
7-9 months	33.3	0.9	0.7	19.6	45.5	100.0	30.2	271
10-12 months	29.5	0.0	0.4	12.0	58.2	100.0	23.2	222
Total	24.4	3.5	3.4	31.5	37.2	100.0	35.8	1,073

III. SEXUAL, REPRODUCTIVE AND WOMEN'S HEALTH

A. Sexual Health

Given the high prevalence of sexually-transmitted diseases (STDs) including HIV/AIDS among the South African population (Department of Health, 1999), the 1998 SADHS collected data concerning women's awareness, knowledge and attitudes about AIDS, sexual behaviour and condom use, and the prevalence of STD symptoms among men.

Awareness and Knowledge of HIV/AIDS

The Women's Questionnaire included a series of questions about HIV/AIDS. Women were first asked if they had ever heard of AIDS and if so, whether they thought they could protect themselves against the disease through certain specific behaviours such as having a good diet or staying with one faithful partner, etc.

Results show that awareness of HIV/AIDS is high; 97 percent of women age 15-49 say they have heard of the disease. However, detailed knowledge of HIV/AIDS which would enable behavioural change to prevent further infections of HIV is not as high. For example, between 8 and 10 percent of women say that staying with one faithful partner and using a condom will not protect them from HIV/AIDS. Whilst 6 percent say that touching a person with AIDS places them at risk of contracting the virus and 21 percent still believe that transmission can take place by sharing public toilets. Women are almost equally divided on the issue of whether avoiding mosquito bites can protect against AIDS: 44 percent say no, 38 percent say yes and the remainder are not sure. As expected, urban women are more knowledgeable about HIV/AIDS than non-urban women.

Table 7 Knowledge of ways to avoid AIDS

Percent distribution of women age 15-49 who have ever heard of AIDS by knowledge of ways to avoid AIDS, according to residence, South Africa 1998

Means of protecting against AIDS	Residence		Total
	Urban	Non-urban	
Having a good diet			
Not true	71.1	56.7	65.5
True	17.3	23.5	19.7
DK/Missing	11.6	19.8	14.7
Staying with one faithful partner			
Not true	7.8	9.7	8.5
True	89.9	83.6	87.4
DK/Missing	2.4	6.7	4.1
Avoid public toilets			
Not true	71.4	55.4	65.2
True	21.1	29.0	24.1
DK/Missing	7.5	15.7	10.6
Using condoms			
Not true	5.5	8.5	6.6
True	91.4	81.2	87.4
DK/Missing	3.2	10.4	5.9
Avoid touching person with AIDS			
Not true	82.8	61.5	74.5
True	10.4	21.8	14.8
DK/Missing	6.8	16.8	10.6
Avoid sharing food			
Not true	78.5	58.4	70.7
True	13.3	24.0	17.5
DK/Missing	8.1	17.6	11.8
Avoid mosquito bites			
Not true	47.8	38.7	44.3
True	35.9	40.0	37.5
DK/Missing	16.3	21.3	18.3
Injection with clean needle			
Not true	4.1	6.7	5.1
True	92.1	83.9	88.9
DK/Missing	3.9	9.4	6.0
Avoid sharing razors			
Not true	7.7	6.4	7.2
True	86.7	84.2	85.7
DK/Missing	5.6	9.4	7.0
Total	100.0	100.0	100.0
Number of women	6,949	4,395	11,344

Number of Sexual Partners and Condom Use

Women interviewed in the SADHS were asked a number of questions about their sexual behaviour including how many sexual partners they had had in the past 12 months, how long ago they last had sex, whether that was with a spouse or a regular or casual partner, and whether they had used a condom that time. These were among the most sensitive questions in the entire interview and, although interviewers were all women, it is difficult to assess the degree to which the respondents answered truthfully.

Data on the number of sexual partners are presented in Table 8 according to marital status.¹ Very few women (3 percent) report having had two or more sexual partners in the 12 months preceding the survey.

¹In this report, women who were either formally married or living with a man are considered as married.

Table 8 Number of sexual partners

Percent distribution of women age 15-49 by number of persons with whom they had sexual intercourse in the last 12 months according to background characteristics, South Africa 1998

Background characteristic	Currently married women						Currently non-married women						Number	All women						
	0	1	2+	Missing	Total	Mean	0	1	2+	Missing	Total	Mean		0	1	2+	Missing	Total	Mean	
Age																				
15-19	1.1	91.9	5.4	1.5	100.0	1.0	61.6	34.8	2.9	0.7	100.0	0.4	2,176	59.7	36.7	2.9	0.7	100.0	0.4	2,249
20-24	1.1	96.7	2.1	0.2	100.0	1.0	22.6	71.2	3.9	2.2	100.0	0.8	1,610	17.8	76.9	3.5	1.8	100.0	0.9	2,075
25-29	1.2	96.0	2.5	0.4	100.0	1.0	18.7	73.6	4.9	2.7	100.0	0.9	958	10.2	84.5	3.7	1.6	100.0	0.9	1,858
30-34	1.5	96.3	1.9	0.3	100.0	1.0	21.2	69.7	6.7	2.4	100.0	0.9	646	9.2	85.9	3.7	1.1	100.0	1.0	1,654
35-39	1.6	96.2	0.7	1.4	100.0	1.0	27.1	65.0	4.9	3.0	100.0	0.8	522	9.7	86.3	2.1	1.9	100.0	0.9	1,636
40-44	4.1	94.5	0.8	0.6	100.0	1.0	38.5	53.5	3.5	4.5	100.0	0.6	429	15.5	81.0	1.6	1.9	100.0	0.9	1,294
45-49	6.5	92.0	1.3	0.2	100.0	1.0	57.3	39.9	1.0	1.9	100.0	0.4	318	23.1	74.9	1.2	0.7	100.0	0.8	970
Marital duration																				
Never married							38.1	56.1	3.7	2.0	100.0	0.7	5,665	38.1	56.1	3.7	2.0	100.0	0.7	5,665
0-4	0.7	95.7	3.1	0.6	100.0	1.0	17.3	69.9	10.8	2.1	100.0	1.0	106	2.2	93.3	3.8	0.7	100.0	1.0	1,165
5-9	1.3	96.8	1.6	0.4	100.0	1.0	29.5	62.3	6.6	1.6	100.0	0.8	150	4.9	92.4	2.2	0.5	100.0	1.0	1,174
10-14	2.1	96.4	1.1	0.4	100.0	1.0	25.3	64.9	6.5	3.3	100.0	0.9	181	5.9	91.3	2.0	0.9	100.0	1.0	1,109
15+	4.3	94.0	0.8	0.9	100.0	1.0	44.0	52.3	2.2	1.5	100.0	0.6	556	12.7	85.1	1.1	1.0	100.0	0.9	2,622
Residence																				
Urban	2.6	95.2	1.5	0.7	100.0	1.0	39.2	54.3	4.1	2.4	100.0	0.7	4,057	23.6	71.8	2.9	1.7	100.0	0.8	7,095
Non-urban	2.3	95.5	1.7	0.5	100.0	1.0	35.4	59.6	3.6	1.4	100.0	0.7	2,601	20.9	75.4	2.7	1.0	100.0	0.8	4,640
Education																				
No education	5.2	93.1	1.1	0.6	100.0	1.0	35.1	56.1	3.1	5.7	100.0	0.7	286	15.8	79.9	1.9	2.4	100.0	0.9	804
Sub A - Std 3	1.6	95.3	2.6	0.5	100.0	1.0	35.9	58.4	4.6	1.1	100.0	0.7	552	16.3	79.6	3.5	0.7	100.0	0.9	1,291
Std 4 - Std 5	3.0	94.5	1.8	0.6	100.0	1.0	42.1	51.3	4.2	2.5	100.0	0.6	863	23.8	71.5	3.1	1.6	100.0	0.8	1,625
Std 6 - Std 9	2.6	95.1	1.8	0.6	100.0	1.0	40.6	54.1	3.9	1.4	100.0	0.6	3,305	26.8	68.9	3.2	1.1	100.0	0.8	5,182
Std 10	1.5	97.2	0.4	0.8	100.0	1.0	29.5	64.7	2.9	2.9	100.0	0.7	1,174	18.6	77.4	2.0	2.1	100.0	0.8	1,922
Higher	1.3	97.3	0.6	0.8	100.0	1.0	34.1	58.9	5.0	2.0	100.0	0.7	478	18.5	77.2	2.9	1.4	100.0	0.9	912
Population Group																				
African	2.6	95.0	1.8	0.6	100.0	1.0	32.3	61.3	4.4	2.1	100.0	0.7	5,519	20.5	74.6	3.3	1.5	100.0	0.8	9,147
Afr. urban	2.6	94.9	1.8	0.6	100.0	1.0	30.4	62.1	4.8	2.6	100.0	0.7	3,063	20.1	74.3	3.7	1.9	100.0	0.8	4,873
Afr. non-urban	2.5	95.1	1.8	0.6	100.0	1.0	34.6	60.2	3.8	1.4	100.0	0.7	2,456	21.0	75.0	2.9	1.1	100.0	0.8	4,274
Coloured	2.7	96.0	0.9	0.4	100.0	1.0	56.9	39.1	1.3	2.6	100.0	0.4	648	31.9	65.3	1.1	1.6	100.0	0.7	1,201
White	2.0	96.9	0.7	0.4	100.0	1.0	73.1	24.8	2.1	0.0	100.0	0.3	301	25.3	73.2	1.2	0.2	100.0	0.8	916
Asian	2.7	94.7	0.4	2.2	100.0	1.0	81.1	18.9	0.0	0.0	100.0	0.2	156	32.9	65.5	0.2	1.4	100.0	0.7	406
Total	2.5	95.3	1.5	0.6	100.0	1.0	37.7	56.4	3.9	2.0	100.0	0.7	6,658	22.5	73.2	2.9	1.4	100.0	0.8	11,735

The figure is only slightly higher among currently unmarried women (4 percent) than among married women (2 percent). Moreover, there are only very minor differences in the number of sexual partners across background characteristics. It is interesting to note that almost 40 percent of unmarried women report having no partners during the previous year.

Women were also asked about condom use during the most recent sexual intercourse. As shown in Table 9, overall, only 8 percent of women reported that their partner had used a condom during their last sexual intercourse. Somewhat more encouraging, however, is that condom use is considerably higher for sexual encounters with non-marital partners. Among women whose most recent sexual intercourse was with a boyfriend or casual acquaintance, 16 percent reported that they had used condoms compared to 6 percent who last had sex with their husband (or the man they live with).

Younger women and women living in urban areas are more likely to use condoms than other women. Condom use is also higher among women in Free State, Gauteng, Mpumalanga, and Northwest Provinces. As might be expected, women with more education are also more likely than less educated women to have used a condom the last time they had sex. Overall, condom use is highest among African women, followed by coloured women and white women. It is lowest among Asian women, although they are more likely than coloured or white women to use condoms with their husbands.

Prevalence of Symptoms of Sexually-transmitted Diseases Among Men

The prevalence of sexually-transmitted diseases (STDs) is very high in South Africa. In order to obtain a very rough proxy measure of the prevalence of these diseases, all adult men interviewed were asked if they had had symptoms of STDs in the three months prior to the survey. The symptoms asked about were painful urination or penile discharge (symptoms associated with gonorrhoea) and sores in the genital area (symptoms similar to those of syphilis). Because STDs are likely to be asymptomatic in women, the questions were only asked of men.

Twelve percent of adult men in South Africa report having recently had symptoms associated with STDs (Table 10). Ten percent report having had painful urination or a discharge from the penis, while five percent have had genital sores in the three months preceding the survey. Levels are higher among non-urban men, men in KwaZulu-Natal and Mpumalanga Provinces, and African men. STD-type symptoms are also more prevalent among less well-educated men than among those with matric or a higher education.

B. Fertility and Contraceptive Use

Fertility Levels

All women age 15-49 who were interviewed with the Women's Questionnaire were asked to give a retrospective reproductive history. To encourage complete reporting, each woman was first asked about the number of sons and daughters living with her, the number living elsewhere, the number who had died and the number of pregnancies lost before full term. She was then asked for a history of all her pregnancies, including the month and year in which each child was born, the child's name, sex and, if dead, the age at death, and, if alive, the current age and whether the child was living with the mother. For miscarriages and stillbirths, women were asked for the month and year of termination and the length of gestation.

Table 9 Use of condoms

Among women aged 15-49 who had sexual intercourse in the 12 months preceding the survey, the percentage who ever used condoms, and percentage who used condom during last sexual intercourse, according to type of partner and background characteristics, South Africa 1998

Background characteristic	Ever used condoms	Number	Used condom during last sex with:					
			Spouse		Non spouse		Any partner	
			Number	Percentage	Number	Percentage	Number	Percentage
Age								
15-19	28.4	854	(18.6)	28	21.2	827	19.5	854
20-24	32.4	1,628	9.3	274	18.7	1,354	14.4	1,628
25-29	28.4	1,597	8.8	660	14.6	937	7.6	1,597
30-34	27.5	1,433	6.5	805	17.1	627	6.6	1,433
35-39	19.7	1,391	6.9	910	9.0	481	2.6	1,391
40-44	17.0	1,018	4.3	678	10.7	339	3.5	1,018
45-49	15.9	696	2.6	511	14.0	185	3.0	696
Residence								
Urban	31.2	5,207	6.5	2,394	20.3	2,813	10.0	5,207
Non-urban	16.2	3,410	6.1	1,472	10.6	1,938	5.5	3,410
Province								
Western Cape	23.4	820	1.8	425	17.9	395	8.1	820
Eastern Cape	14.3	1,131	5.1	492	11.4	639	6.1	1,131
Northern Cape	14.1	153	4.1	77	10.8	76	5.0	153
Free State	32.9	528	11.8	290	26.9	238	10.9	528
KwaZulu Natal	22.2	1,667	5.5	607	11.6	1,061	6.7	1,667
North West	26.5	668	9.0	277	16.9	391	9.0	668
Gauteng	34.5	2,028	6.3	950	22.1	1,077	10.4	2,028
Mpumalanga	24.1	670	9.5	272	16.8	397	9.5	670
Northern	23.0	952	6.8	475	14.3	477	6.4	952
Education								
No education	6.9	593	2.2	305	3.6	288	0.9	593
Sub A - Std 3	9.6	984	3.3	498	5.3	486	2.3	984
Std 4 - Std 5	15.0	1,157	5.6	586	11.9	571	5.1	1,157
Std 6 - Std 9	25.8	3,627	6.9	1,439	17.3	2,188	9.3	3,627
Std 10	36.1	1,526	9.0	642	20.2	884	11.3	1,526
Higher	52.3	729	8.5	396	35.1	333	15.5	729
Population Group								
African	22.8	6,853	7.5	2,623	16.2	4,230	9.2	6,853
Afr. urban	28.5	3,718	8.2	1,321	20.5	2,398	12.2	3,718
Afr. non-urban	15.9	3,134	6.8	1,302	10.5	1,832	5.6	3,134
Coloured	19.5	777	2.9	434	14.6	343	5.6	777
White	49.6	673	4.7	551	30.7	122	4.3	673
Asian	46.0	266	5.1	232	(14.2)	33	1.8	266
Total	22.2	8,617	6.4	3,866	16.4	4,750	8.2	8,617

Note: Total includes a few women whose ethnic group was not stated. Numbers in parentheses are based on 25-49 cases.

Total fertility rates for the survey are calculated directly from the pregnancy history data and are shown in Table 11, along with the percentage of women who were pregnant at the time of the survey and the mean number of children ever born to women age 40-49.

Table 10 Symptoms of sexually transmitted diseases in men

Percentage of men age 15 and over who report having had painful urination or penile discharge, genital sores or either in the three months preceding the survey, according to background characteristics, South Africa 1998

Background characteristic	Percent with painful urination/ discharge	Percent with genital sores	Percent with either	Number of men
Age				
15-24	10.4	5.6	12.1	1,816
25-34	11.6	6.0	13.9	1,123
35-44	10.4	5.3	12.0	1,005
45-54	9.2	5.0	10.6	701
55-64	10.1	2.6	10.3	518
65+	9.2	3.2	10.1	507
Residence				
Urban	8.1	3.4	9.1	3,569
Non-urban	14.3	7.9	16.6	2,102
Province				
Western Cape	4.8	1.4	5.6	721
Eastern Cape	13.8	3.6	15.1	758
Northern Cape	6.1	1.1	6.7	135
Free State	13.3	6.0	15.2	444
KwaZulu Natal	16.6	10.5	18.9	1,064
North West	6.6	5.0	8.4	551
Gauteng	4.8	1.9	5.5	1,099
Mpumalanga	17.1	8.6	20.1	377
Northern	9.5	5.3	11.5	521
Education				
No education	12.7	6.3	13.5	562
Sub A - Std 3	16.2	7.7	18.5	777
Std 4 - Std 5	11.1	6.3	13.0	755
Std 6 - Std 9	10.3	4.6	11.9	2,297
Std 10	5.9	3.4	7.0	801
Higher	4.0	2.2	5.0	440
Population Group				
African	10.6	4.8	12.1	2,375
Afr. urban	15.2	8.6	17.7	1,882
Afr. non-urban	12.6	6.5	14.6	4,257
Coloured	4.8	1.3	5.6	637
White	1.7	0.1	1.7	564
Asian	3.4	0.4	3.8	195
Total	10.4	5.0	11.9	5,671
Total includes cases with education and ethnic group not stated				

The total fertility rates are for the three-year period before the survey, a period covering principally early 1995 to early 1998. The total fertility rate is the sum of the age-specific rates and is a useful measure of the level of recent fertility. It represents the number of children a woman would have by the end of her reproductive years if she were to bear children at the currently observed age-specific rates.

The total fertility rate for the three-year period before the survey is 2.9. Differentials in fertility levels are sizeable. The total fertility rate among non-urban women (3.9) is almost double that for urban women (2.3). Fertility levels are also higher in Northern, Eastern Cape, and KwaZulu-Natal Provinces and lowest in Free State, Western Cape and Gauteng Provinces. As expected, fertility declines as education increases. The total fertility rate among women with no education is 4.5, compared to 1.9 for women who have attended at least some university-level education.

Fertility also varies by ethnic group. The total fertility rate is 3.1 among African women, 2.5 for coloureds and 1.9 for whites. Unfortunately, despite attempts to design the sample so as to over sample Asian households, the sample of Asian women was too small to allow a reliable estimate of the total fertility rate. Less than four percent of South African women were pregnant at the time of the survey. Differences by background characteristics reflect those mentioned above for fertility.

The effect of the higher fertility levels prevailing in the past is evident in the mean number of children ever born to women in their 40s. The difference between the mean number of children ever born to women 40-49 and the total fertility rate is almost one child, indicative of a gradual decline in fertility in South Africa over the past two decades.

Contraceptive Use

In the 1998 SADHS, a series of questions was asked of women age 15-49 about family planning knowledge, ever use, and current use. Respondents were first asked to name all of the methods that they had heard about. For methods not mentioned spontaneously, the interviewer read

a description of the method and asked if the respondent had heard of the method. For each method which they recognised, respondents were asked if they had ever used the method. Finally, women were asked if they were currently using a method, and, if so, where they had obtained the method that they were using.

Knowledge of at least one family planning method is universal among South African women (Table 12).

Table 11 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage currently pregnant and mean number of children ever born to women 40-49 years of age, by selected background characteristics, South Africa 1998

Background characteristic	Total fertility rate ¹	Percent currently pregnant ¹	Mean number of children ever born to women age 40-49
Residence			
Urban	2.3	2.7	3.2
Non-urban	3.9	4.7	4.7
Province			
Western Cape	2.3	3.2	3.0
Eastern Cape	3.5	3.4	4.0
Northern Cape	2.7	3.6	3.6
Free State	2.2	3.6	3.6
KwaZulu Natal	3.3	4.3	4.0
North West	2.4	3.2	3.7
Gauteng	2.3	2.2	3.2
Mpumalanga	3.1	4.6	4.5
Northern	3.9	4.6	4.9
Education			
No education	4.5	3.3	4.9
Sub A - Std 3	3.9	4.8	4.4
Std 4 - Std 5	3.5	4.0	4.1
Std 6 - Std 9	2.7	3.0	3.2
Std 10	2.2	3.5	2.4
Higher	1.9	3.8	2.5
Population Group			
African	3.1	3.7	4.1
Afr. urban	2.4	2.8	3.5
Afr. non-urban	4.0	4.7	4.9
Coloured	2.5	3.5	3.2
White	1.9	2.5	2.5
Total	2.9	3.5	3.7

Note: The number of Asian women interviewed was too small to provide a reliable measure of the total fertility rate.

¹ Women age 15-49 years

With regard to knowledge of specific methods, virtually all women have heard about the pill and injectables, while almost 90 percent have heard about condoms. Around 70 percent of all women know about the IUD and female sterilisation. Male sterilisation is less well known than the other modern methods, while vaginal methods (foam, diaphragm, etc.) are the least widely known. About one-third of all women have heard about withdrawal, while one-quarter know about periodic abstinence or the rhythm method and 12 percent know about contraceptive herbs. Five percent of women mentioned methods that were not on the list, mostly traditional methods like strings, or Coke.

Three-quarters of reproductive age women in South Africa have had experience in using family planning methods (Table 12). Almost all of the women who have ever used a method have used a modern contraceptive. Injection is by far the most commonly used method, having been used by 57 percent of all women. The pill is the next most widely used method, having been used by 38 percent of all women. Eighteen percent of women have used condoms.

Half of all women in South Africa are currently using a contraceptive method. By far the most widely used method is the injection (27 percent), followed by the pill and female sterilisation (9 percent each). As expected, contraceptive use is higher among currently married women than all women and is highest among women who were sexually active in the four weeks before the survey.

Survey data indicate that some women are much more likely to be using contraception than others (see Table 13). Contraceptive use is highest among sexually active women in their teens and 20s, two-thirds of whom are currently using some method of family

planning. The drop in contraceptive use among older women may reflect declining fecundity. The injection is by far the most popular method among younger women and it is not until women reach their 40s that female sterilisation overtakes the injection in levels of use.

The level of current contraceptive use is higher in urban areas (67 percent) than in rural areas (54 percent).

Differentials in current contraceptive use by province are large. Almost three-quarters of sexually active women in Western Cape Province are using some method of contraception, compared to only 55 percent of those in Northern Province. Contraceptive use increases consistently with educational level of women. Thirty-five percent of sexually active women with no formal education are currently using a method, compared to 79 percent of those with higher education. Asian women are the most likely to be using contraception, followed by whites, coloureds, and Africans. Unlike African and coloured women who are most likely by far to be using injections as a method, Asian and white women tend to use the pill and female sterilisation, with very few using injections. Male sterilisation is also commonly used by white couples only. Contraceptive use also varies by family size, increasing with the number of living children a woman has.

Table 12 Knowledge of methods, ever use and current use of methods

Percentage of all women, currently married women and sexually active women age 15-49 knowing of, ever using, and currently using contraceptive methods, South Africa 1998

Contraceptive method	Percent who know method			Percent who ever used			Percent currently using		
	All	CM	SA	All	CM	SA	All	CM	SA
Any method	96.7	98.1	98.6	75.0	84.6	87.3	50.1	56.3	62.1
Any modern method	96.5	98.0	98.5	73.9	83.2	86.1	49.3	55.1	61.2
Pill	93.2	95.4	95.8	37.6	49.3	48.2	9.3	10.6	13.2
IUD	71.4	79.5	80.2	8.5	13.1	12.2	1.2	1.8	1.9
Injections	94.4	96.7	97.3	57.0	59.1	64.5	27.3	23.2	30.1
Diaph./Foam/Jelly	16.4	21.1	19.6	0.8	1.3	1.3	0.0	0.0	0.0
Condom	88.7	89.1	91.6	17.8	19.2	23.0	1.9	1.7	2.3
Female sterilisation	67.9	77.8	75.0	8.7	15.8	12.0	8.7	15.8	12.0
Male sterilisation	35.3	44.1	40.6	1.3	2.8	2.2	0.9	2.1	1.7
Any traditional method	37.2	45.7	44.9	9.8	13.4	13.1	0.6	0.9	0.7
Periodic abstinence	25.3	30.9	31.0	4.2	5.0	5.3	0.2	0.3	0.3
Withdrawal	30.5	39.3	38.0	7.3	10.7	10.1	0.4	0.6	0.4
Herbs	12.4	14.2	13.9	0.9	1.1	0.9	0.1	0.2	0.2
Other methods	4.8	5.4	6.0	1.2	1.6	1.6	0.1	0.1	0.1
Number of women	11,735	5,077	6,062	11,735	5,077	6,062	11,735	5,077	6,062

CM = Currently married or living with a man

SA= Sexually active in last 4 weeks

The SADHS included a question to ascertain whether women were aware that current law allows for abortions up to 12 weeks of pregnancy. Fifty-three percent of all women know that early abortions are legal, while 19 percent believe that such abortions are not legal and 28 percent do not know (data not shown).

Table 13 Current use of contraception by background characteristics

Percent distribution of sexually active women by contraceptive method currently being used, according to background characteristics, South Africa 1998

Background characteristic	Any method	Any modern method	Pill	IUD	Injections	Condom	Sterilisation		Any tradition. method	Periodic abstinence	Withdrawal	Herbs	Other methods	Not currently using	Total	Number
							Female	Male								
Age																
15-19	66.4	64.4	9.3	0.5	50.7	4.0	0.0	0.0	2.0	0.7	0.7	0.4	0.2	33.6	100.0	412
20-24	68.6	68.0	13.8	0.2	48.9	4.2	0.7	0.2	0.6	0.0	0.4	0.1	0.1	31.4	100.0	960
25-29	65.4	64.3	17.9	1.3	39.6	1.1	3.4	1.0	1.1	0.5	0.2	0.3	0.0	34.6	100.0	1,122
30-34	63.8	62.9	17.2	2.4	29.1	2.7	9.9	1.6	0.9	0.3	0.4	0.2	0.1	36.2	100.0	1,102
35-39	62.4	61.1	12.7	3.2	21.3	1.8	19.4	2.7	1.3	0.3	0.7	0.1	0.1	37.6	100.0	1,073
40-44	56.6	55.9	8.8	2.4	13.8	0.9	26.5	3.4	0.8	0.3	0.4	0.0	0.1	43.4	100.0	838
45-49	45.5	45.1	5.2	2.6	6.1	2.4	26.1	2.7	0.4	0.0	0.4	0.0	0.0	54.5	100.0	554
Residence																
Urban	66.8	66.0	15.2	2.6	28.4	2.7	14.7	2.3	0.8	0.4	0.3	0.1	0.0	33.2	100.0	3,855
Non-urban	53.9	52.7	9.7	0.6	32.9	1.6	7.4	0.6	1.2	0.1	0.7	0.2	0.1	46.1	100.0	2,207
Province																
Western Cape	73.9	73.7	11.3	1.3	32.2	2.2	23.9	2.7	0.2	0.2	0.0	0.0	0.0	26.1	100.0	594
Eastern Cape	60.2	59.9	9.0	1.4	36.6	1.4	9.7	1.9	0.3	0.1	0.1	0.0	0.1	39.8	100.0	691
Northern Cape	65.9	65.9	11.4	1.2	30.0	0.4	21.0	1.9	0.0	0.0	0.0	0.0	0.0	34.1	100.0	118
Free State	68.5	67.9	13.1	0.6	36.4	3.0	10.8	4.0	0.6	0.0	0.6	0.0	0.0	31.5	100.0	384
KwaZulu Natal	58.3	57.1	13.5	1.2	26.1	2.5	13.4	0.3	1.2	0.2	0.9	0.0	0.2	41.7	100.0	1,146
North West	69.8	69.6	16.1	2.9	41.4	1.6	6.7	0.9	0.2	0.2	0.0	0.0	0.0	30.2	100.0	470
Gauteng	62.0	60.9	15.8	3.7	22.8	2.8	13.1	2.8	1.1	0.5	0.5	0.2	0.0	38.0	100.0	1,553
Mpumalanga	55.5	53.2	11.0	0.7	30.1	2.2	8.1	1.2	2.2	1.1	0.3	0.4	0.5	44.5	100.0	510
Northern	54.9	53.3	12.8	0.8	33.8	2.1	3.9	0.0	1.6	0.0	0.8	0.8	0.0	45.1	100.0	595
Education																
No education	35.1	33.1	3.7	0.0	20.1	0.5	8.8	0.0	2.0	0.5	1.4	0.0	0.1	64.9	100.0	455
Sub A-Std 3	45.0	43.7	6.4	0.4	22.7	1.6	12.6	0.0	1.3	0.0	1.1	0.2	0.0	55.0	100.0	704
Std 4-Std 5	53.9	53.6	8.7	0.4	31.6	1.1	11.3	0.4	0.3	0.1	0.1	0.1	0.0	46.1	100.0	813
Std 6-Std 9	65.7	64.6	11.7	2.1	34.2	2.2	13.2	1.2	1.1	0.3	0.4	0.3	0.1	34.3	100.0	2,416
Std 10	73.5	73.1	21.7	3.3	31.8	3.3	9.1	3.9	0.4	0.0	0.1	0.1	0.2	26.5	100.0	1,099
Higher	79.4	78.1	25.7	3.8	23.9	4.4	15.5	4.8	1.3	1.3	0.0	0.0	0.0	20.6	100.0	574
Population Group																
African	58.6	57.6	11.5	1.5	35.1	1.8	7.7	0.0	1.0	0.3	0.5	0.2	0.1	41.4	100.0	4,636
Afr. urban	63.3	62.4	13.1	2.1	35.7	1.9	9.5	0.0	0.9	0.4	0.3	0.2	0.0	36.7	100.0	2,646
Afr. non-urban	52.4	51.2	9.2	0.6	34.3	1.7	5.4	0.0	1.2	0.1	0.8	0.2	0.2	47.6	100.0	1,991
Coloured	68.8	68.4	11.3	2.0	27.4	3.1	22.4	2.1	0.4	0.2	0.0	0.0	0.2	31.2	100.0	564
White	76.2	74.9	19.6	4.2	4.7	4.1	26.9	15.4	1.3	0.7	0.4	0.0	0.2	23.8	100.0	587
Asian	80.1	80.1	34.4	4.5	3.6	5.3	31.9	0.4	0.0	0.0	0.0	0.0	0.0	19.9	100.0	237
Living kids																
None	50.5	49.3	13.3	0.4	30.7	4.3	0.5	0.1	1.2	0.6	0.3	0.2	0.0	49.5	100.0	1,113
1	59.9	59.5	15.6	1.5	38.0	2.5	1.3	0.5	0.4	0.2	0.1	0.1	0.1	40.1	100.0	1,351
2	68.4	66.9	16.0	2.8	30.0	2.4	11.6	4.2	1.5	0.5	0.5	0.3	0.1	31.6	100.0	1,452
3	69.6	68.8	11.4	3.6	26.5	1.6	23.5	2.2	0.8	0.1	0.6	0.1	0.1	30.4	100.0	953
4+	61.9	61.0	8.4	1.2	23.4	0.7	26.2	1.1	0.9	0.0	0.8	0.0	0.1	38.1	100.0	1,193
Total	62.1	61.2	13.2	1.9	30.1	2.3	12.0	1.7	1.0	0.3	0.4	0.2	0.1	37.9	100.0	6,062

C. Violence Against Women

The 1998 SADHS contained a series of questions on the treatment of women, covering economic, physical and sexual abuse. To encourage more complete reporting of physical violence by spouses, all women were asked about experiences of violence in the past year and those who did not report physical violence were asked if they had ever been hit by a husband or boyfriend. Those who reported non-partner violence were asked further questions which provided opportunities of disclosure of partner violence.

The regular non-provision of money for food, rent or bills whilst having money for other things was used as an indicator of economic maltreatment. One in five currently married women reported such abuse. It was more common amongst less educated, non-urban, African, and younger women and those residing in the Free State and KwaZulu-Natal.

As Table 14 shows, one in eight women (13 percent) reported having been beaten by a partner. Half of these (6 percent of ever-partnered women) reported abuse in the last year and 43 percent of those beaten in the past year (3 percent of ever-partnered women) reported needing medical attention as a result of such beatings. Among women who had ever been pregnant, 4 percent reported that they had been physically abused during pregnancy. An indicator of general levels of physical violence in communities was given by the question on experience of physical violence by people other than current or previous partners. Four percent of all women reported this in the year prior to the survey. Surprisingly, the prevalence of rape is reportedly low for all women. Only four percent of all women reported ever having been raped.

Table 14 Treatment of women

Percentage of women who report various types of mistreatment, according to background characteristics, South Africa 1998

Background characteristic	Partner not provided money in last year	No. currently married women	Abuse by partner in last year	Ever abused by partner	Needed medical attention	No. ever had sex	Abuse by non-partner in last year	Ever raped	All women	Abuse in pregnancy	No. ever pregnant
Age											
15-19	22.3	73	7.3	11.9	29.1	1,017	9.3	4.9	2,249	4.7	308
20-24	22.4	465	7.9	14.2	37.4	1,856	3.6	4.9	2,075	4.3	1,246
25-29	19.8	900	6.0	12.0	48.7	1,801	2.6	5.1	1,857	4.2	1,542
30-34	18.1	1,008	7.4	14.9	38.5	1,636	1.5	5.3	1,654	3.5	1,564
35-39	19.7	1,114	6.5	12.8	43.0	1,624	2.1	3.6	1,636	3.5	1,576
40-44	18.1	865	4.0	10.3	48.8	1,290	1.6	2.8	1,294	2.2	1,250
45-49	18.2	652	3.5	9.7	80.2	965	2.7	3.2	970	4.3	932
Residence											
Urban	17.4	3,038	7.0	14.8	41.8	6,171	3.5	5.0	7,095	4.5	5,016
Non-urban	22.0	2,039	5.3	9.1	44.4	4,019	4.0	3.6	4,640	2.4	3,401
Province											
Western Cape	13.6	543	8.0	16.9	38.6	1,014	5.1	6.5	1,193	7.5	816
Eastern Cape	18.0	583	5.4	8.7	39.1	1,367	2.7	2.9	1,566	2.9	1,071
Northern Cape	18.3	118	7.2	13.2	43.4	209	7.1	3.8	253	3.1	190
Free State	25.2	355	7.3	12.4	28.9	662	2.8	2.6	763	2.5	550
KwaZulu Natal	25.3	955	5.4	10.2	44.8	1,969	3.5	3.3	2,364	3.0	1,708
North West	15.5	352	4.2	6.8	41.4	788	3.0	2.3	909	1.5	653
Gauteng	17.5	1,224	7.3	17.8	44.0	2,311	3.2	6.5	2,552	5.2	1,899
Mpumalanga	19.4	309	7.6	15.2	55.1	745	4.7	7.1	819	2.4	592
Northern	18.3	639	5.3	8.8	44.6	1,125	5.0	3.3	1,316	2.5	939
Education											
No education	22.4	518	4.6	9.4	38.9	783	1.6	2.6	804	2.5	755
Sub A - Std 3	25.3	739	6.5	13.5	57.8	1,225	2.8	3.8	1,291	3.3	1,136
Std 4 - Std 5	23.5	762	7.5	15.2	47.1	1,412	4.6	4.0	1,625	3.7	1,241
Std 6 - Std 9	16.9	1,876	7.2	12.9	38.7	4,241	4.7	4.9	5,181	4.2	3,374
Std 10	18.5	748	5.2	11.9	36.6	1,716	2.3	4.1	1,922	3.7	1,294
Higher	9.1	434	2.9	9.5	50.7	812	3.0	5.5	912	2.5	617
Population Group											
African	22.8	3,628	6.1	11.3	43.1	8,108	3.5	3.8	9,147	2.8	6,599
Afr. urban	22.7	1,810	7.0	13.9	42.9	4,406	3.1	4.4	4,873	3.5	3,480
Afr. non-urban	22.9	1,818	5.0	8.3	43.5	3,702	4.0	3.2	4,274	2.0	3,119
Coloured	16.4	553	10.3	19.7	43.9	979	5.8	6.5	1,201	8.2	870
White	4.3	615	3.8	15.8	36.5	741	4.2	8.7	916	6.4	626
Asian	10.1	250	4.3	12.6	35.2	305	2.9	2.3	406	3.5	274
Total	19.2	5,077	6.3	12.5	42.6	10,190	3.7	4.4	11,735	3.7	8,417

Under-reporting of gender violence is a well recognised problem in surveys and the likelihood of this should be taken into account in interpreting these results. The prevalence of abuse reported in a study conducted in the Eastern Cape, Northern and Mpumalanga Provinces using a randomly selected sub-set of enumeration areas from the SADHS sample was substantially higher. For example, in the Eastern Cape, 27 percent of ever-partnered women reported having experienced physical abuse from a partner vs. only 9 percent from SADHS data; in Mpumalanga, the levels were 29 percent from the special study compared to 15 percent from the SADHS, and in Northern Province the rates were 18 percent from the special study versus 9 percent in the SADHS (Jewkes, Penn-Kekana & Levin, 1998). The usual explanations for under-reporting are concern about recrimination, fear of identifying oneself as an abused woman due to a socialisation that encourages women to accept chastisement as a male prerogative, feelings of shame about the assault and having provoked it, perceptions that it is a private matter and loyalty to the abuser.

D. Maternal Health

Proper care during pregnancy and childbirth are important to the health of both a mother and her baby. To obtain data on these issues, the SADHS included questions on tetanus toxoid vaccinations, antenatal care, and assistance received at delivery for each birth that a woman reported during the five-year period before the survey.

Tetanus toxoid injections are given during pregnancy in order to prevent neonatal tetanus, a frequent cause of infant deaths when sterile procedures are not observed in cutting the umbilical cord following delivery. Table 15 shows that, for 59 percent of births in the five-year period before the survey, the mother received at least one tetanus toxoid injection during pregnancy. Tetanus toxoid coverage is lower for births in urban areas, births in Western Cape and Gauteng Provinces, births to more educated women and births to white women. It is likely that many of the women who do not report having had injections during pregnancy may be protected from tetanus from injections given either during previous pregnancies or during youth.

Antenatal care from a trained provider is important to monitor the pregnancy and reduce the risks for the mother and child during pregnancy and at delivery. To be most effective, there should be regular antenatal care throughout a pregnancy. Overall, the 1998 SADHS found that antenatal care was received from a doctor or a nurse or midwife for 94 percent of the births during the five-year period before the survey (Table 15). Antenatal care from nurses and midwives is much more common than care provided by doctors. While antenatal care coverage is high among all groups of women, the type of provider varies considerably. For example, most antenatal care for non-urban births (77 percent) is provided by nurses and midwives, while for urban births, fewer women (54 percent) receive care from nurses and midwives. Similarly, in Eastern Cape and Northern Provinces, almost all the antenatal care is obtained from nurses and midwives, while in Gauteng, Western Cape and Northern Cape Provinces, more than 40 percent of care is provided by doctors.

Most women in South Africa receive medical assistance at delivery. Of all women who gave birth during the five years preceding the survey, 84 percent received medical assistance from either a doctor, a nurse or a midwife. Most assistance at delivery was, however, received from trained nurses and midwives. Only 30 percent received assistance from a doctor. As with antenatal care, urban women, those in Western Cape and Gauteng Provinces, women with more education and white and Asian women are more likely than others to have assistance from a doctor during delivery. Despite progress in the provision of maternal health care, the maternal mortality ratio remains high at 150 deaths per 100,000 live births. It is important to understand the contributing factors to this high ratio. Hopefully, the Confidential Enquiry into the Causes of Maternal Deaths in South Africa instituted by the Minister of Health in 1997 will provide more information on this important topic.

Table 15 Tetanus toxoid vaccination, antenatal care and assistance at delivery

For all births in the five years preceding the survey, the percentage whose mothers received at least one tetanus toxoid injection, antenatal care from a doctor or trained nurse/midwife, and assistance at delivery from a doctor or trained nurse/midwife, by background characteristics, South Africa 1998

Background characteristic	Tetanus toxoid	Antenatal care		Assistance at delivery		Number of births
		From doctor	From nurse/ midwife	From doctor	From nurse/ midwife	
Maternal age at birth						
<20	63.4	21.2	73.3	23.6	64.5	835
20-34	57.3	31.0	63.3	31.6	52.4	3,407
35+	60.3	26.5	66.7	30.0	52.0	751
Residence						
Urban	46.2	40.9	53.9	42.2	51.2	2,470
Non-urban	71.1	16.8	76.9	18.0	57.5	2,522
Province						
Western Cape	17.8	43.5	48.2	44.4	51.7	401
Eastern Cape	57.4	12.0	82.7	17.8	56.8	741
Northern Cape	53.4	42.1	51.2	38.5	51.8	102
Free State	75.8	34.4	60.4	30.9	57.1	257
KwaZulu Natal	74.9	28.3	66.1	34.1	48.5	1,094
North West	56.3	31.0	63.1	31.4	56.9	340
Gauteng	37.6	44.7	50.1	43.2	50.8	954
Mpumalanga	61.8	33.5	60.5	20.6	55.4	379
Northern	80.8	9.7	84.4	13.7	64.8	724
Education						
No education	70.0	9.9	79.9	14.5	45.2	453
Sub A - Std 3	69.4	19.1	73.2	18.5	54.1	657
Std 4 - Std 5	61.9	21.9	75.0	19.9	60.0	747
Std 6 - Std 9	59.3	26.7	67.7	28.6	60.3	2,041
Std 10	47.8	45.0	49.3	45.1	50.2	759
Higher	37.9	63.3	33.0	70.3	28.7	336
Population Group						
African	65.3	22.8	72.0	24.8	57.3	4,149
Afr. urban	54.1	33.6	62.1	36.0	55.8	1,783
Afr. non-urban	73.7	14.7	79.5	16.4	58.3	2,366
Coloured	31.0	45.1	46.7	40.3	54.5	445
White	11.3	82.1	6.3	89.0	10.0	250
Asian	34.4	65.2	28.2	52.7	46.4	114
Birth order						
1	58.8	31.0	63.9	31.1	61.1	1,578
2-3	55.7	33.0	61.3	33.1	51.8	1,961
4-5	59.1	22.0	72.5	27.4	50.4	874
6+	68.7	18.1	73.7	20.7	51.1	579
Total	58.8	28.7	65.5	30.0	54.4	4,992

IV. ADOLESCENT HEALTH

Adolescence is a period of transition from childhood to adulthood during the second decade of life and is usually referred to as the teen years. Although some researchers define adolescence to include the 10-19 year age group (Bongaarts & Cohen, 1998), in this survey, the 15-19 year age group has been used to define adolescence. This is consistent with the standard definition of adolescence used by the National Health Information Systems of South Africa and the World Health Organisation.

A. Adolescent Sexual Behaviour

All women in the 15-49 year age group were asked whether they have ever been married or lived with a man, the number of sexual partners they had had in the 12 months preceding the survey, the last time they had sex, the type of sexual partner with whom they had their last sex and whether or not a condom was used during last sexual intercourse. The results show that almost all the teenagers in the survey are unmarried; only about 3 percent were either married or living with a partner at the time of the survey.

Number of partners

The survey shows that most of the teenagers (60 percent) reported having no sexual partner in the year prior to the interview and more than half of them said they had never had sexual intercourse. Only a few teenagers report having had sex with two or more persons in the last 12 months. The mean number of sexual partners during the year preceding the survey is 0.4. About one in five teenagers was sexually active in the month preceding the survey.

Age at first intercourse

An analysis of the median age at first sexual intercourse shows that most women experience their first sexual intercourse at about the age of eighteen years and rural women experience it earlier than urban women. The age at menarche (the age at which an adolescent girl experiences her first menstruation) for most teenagers is below 15 years.

Teenage pregnancy

Table 16 shows that by the age of 19 years, 35 percent of all teenagers have been pregnant or have had a child. This represents a very high level of teenage fertility, a continuing source of concern to the government and researchers. Teenage pregnancy is more prevalent among coloured and rural African girls, those with little or no education, and those residing in Mpumalanga, Northern Cape, Northern and Eastern Cape Provinces. Also disturbing is the finding that about one in eight teenage deliveries is by caesarean section.

B. Contraceptive Use

Contraceptive use is quite high among all women aged 15-19, especially those who are sexually active. More than one in four teenagers are currently using a modern method of contraception and among sexually active teenagers, almost two-thirds are currently using a modern contraceptive method (see Table 13). Among teenagers, the injectable contraceptive is the most popular, with half of sexually active women currently using it.

Condom use is quite low among all teenagers whether married or unmarried. However, about one in every five teenage women reported using condom during their last sexual intercourse (see Table 9).

C. Knowledge of HIV/AIDS

There is a high level of awareness of HIV/AIDS among teenage women in the survey. As many as 95 percent know about AIDS and most of them get their information from the television, radio, friends and health workers. Newspapers and pamphlets also play important roles in their knowledge of AIDS. However, it is disturbing to find that more than half do not know that a healthy-looking person can have AIDS. Only about 13 percent know someone with HIV/AIDS.

D. Prevalence of Smoking

The prevalence of smoking among teenage men is quite high. About one in seven teenage men smoke cigarettes daily or occasionally. The prevalence is lower among teenage girls. Overall, ten percent of all teenagers smoke.

Table 16 Adolescent pregnancy and motherhood

Percentage of women aged 15-19 who are mothers or who have been pregnant by background characteristics, South Africa 1998

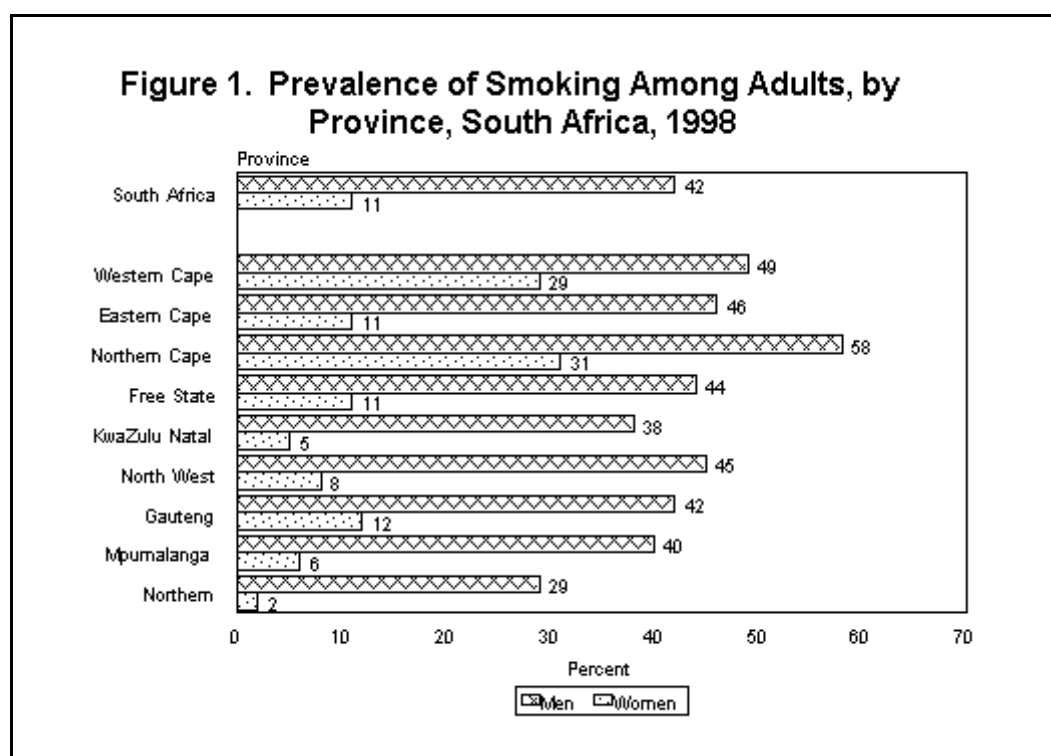
Background characteristic	Percentage who are:		
	Mothers	Ever pregnant	Number of women
Age			
15	2.0	2.4	468
16	5.2	7.9	458
17	10.7	14.2	444
18	19.8	24.6	474
19	30.2	35.1	406
Residence			
Urban	10.5	12.5	1,197
Non-urban	16.3	20.9	1,052
Province			
Western Cape	13.7	16.4	195
Eastern Cape	14.8	18.2	369
Northern Cape	15.2	18.0	44
Free State	8.4	12.6	136
KwaZulu Natal	13.8	16.7	457
North West	11.0	13.4	164
Gauteng	8.9	9.5	377
Mpumalanga	18.8	25.2	190
Northern	14.9	20.0	318
Education			
No education	34.4	34.4	19
Sub A - Std 3	24.7	29.2	114
Std 4 - Std 5	13.8	17.4	336
Std 6 - Std 9	12.9	16.3	1,542
Std 10	7.9	10.1	177
Higher	4.0	4.0	60
Population Group			
African	14.2	17.8	1,802
Afr. urban	11.6	13.7	812
Afr. non-urban	16.4	21.1	990
Coloured	15.7	19.3	208
White	2.2	2.2	162
Asian	2.9	4.3	66
Total	13.2	16.4	2,249

V. ADULT HEALTH

In the adult health questionnaire of the SADHS, data were collected from men and women age 15 and over on self-reported lifestyle habits that influence health and on commonly occurring chronic adult diseases. The blood pressure, height and weight of participants were measured and participants reported on any illness and injury suffered due to their workplace. This information allows the estimation of the prevalence of some commonly occurring conditions, some of the Department of Health's adult health indicators and an assessment of the quality of health services provided by means of the treatment status of a common condition such as hypertension.

A. Smoking Patterns

The smoking patterns of the population are shown in Figure 2. The smoking rate is 42 percent for men and 11 percent for women. For both sexes, the rate is 24 percent, which translates into more than 7 million South Africans 15 years or older who smoke regularly. This rate is, however, lower than those reported in much smaller surveys in 1996 of 34 percent (Reddy, Meyer-Weitz & Yach, 1996) and in 1992 of 32 percent (Martin, Steyn & Yach, 1992). This series of findings suggests that the smoking rate in South Africa reached a peak around 1995/6 and has declined since then. During this period, a range of tobacco control activities has been put in place in the country including the promulgation of the first tobacco control legislation.



Higher smoking rates were observed in the urban areas compared to the non-urban areas, particularly for women. For both men and women the more educated groups smoked less than their less educated counterparts. The highest rate of smoking for both men and women was reported in the Northern Cape and Western Cape Provinces and the lowest rates in Northern, Mpumalanga and KwaZulu-Natal Provinces. Marked differences in the smoking rates of women of different population groups were found, with the lowest rate among non-urban African women and the highest rate among coloured women. For men, the inter-ethnic differences were much smaller with again the non-urban African men having the lowest rates while coloured men have the highest rates.

B. Self-Reported Chronic Conditions

Data on self-reported chronic conditions for men and women are shown in Table 17.1 and Table 17.2. Self-reported rates of chronic conditions are usually found to be different from the rates determined by objective measures of the

reported conditions. This is illustrated where more than double the number of women report suffering from high blood pressure and ischaemic heart diseases (heart attacks and angina) than men. Men most frequently report suffering from high blood pressure, emphysema, asthma and ischaemic heart disease, while women most frequently report the same four conditions along with diabetes. These conditions, with the exception of tuberculosis, are more frequently reported in older people and people living in urban areas.

Table 17.1 Self-reported chronic conditions—men

Percentage of male respondents age 15 and above who report that they have various chronic health conditions, according to background characteristics, South Africa 1998

Background characteristic	Chronic condition									Number of adults
	Blood pressure	Ischaemic heart disease	Stroke	Hyper-cholesterolaemia	Diabetes	Emphysema	Asthma	Tuberculosis	Cancer	
Age										
15-24	0.2	0.3	0.0	0.2	0.1	2.3	2.9	0.8	0.0	1,816
25-34	2.7	1.9	0.7	1.2	0.8	2.8	1.9	2.4	0.2	1,123
35-44	7.5	2.8	0.5	1.8	2.5	2.9	4.0	4.1	0.0	1,005
45-54	18.0	4.6	2.0	4.3	5.3	8.6	4.7	5.2	0.5	701
55-64	16.9	6.6	2.0	3.8	7.8	6.6	5.3	4.0	0.1	518
65+	25.0	7.7	2.3	3.7	4.8	8.5	7.2	4.9	1.6	507
Residence										
Urban	9.3	3.1	0.7	2.2	2.9	4.9	4.1	2.6	0.3	3,569
Non-urban	5.5	2.4	1.2	1.2	1.7	3.2	3.2	3.3	0.2	2,102
Province										
Western Cape	9.2	2.8	0.9	1.7	3.2	9.4	4.6	3.2	0.3	721
Eastern Cape	9.0	3.5	0.9	1.3	2.7	5.2	4.7	5.8	0.2	758
Northern Cape	13.2	4.1	1.3	1.8	2.1	5.6	3.2	3.2	0.2	135
Free State	7.2	2.6	0.4	1.4	1.3	0.7	1.3	2.5	0.4	444
KwaZulu Natal	7.5	3.2	1.6	1.7	3.1	3.4	4.9	3.6	0.2	1,064
North West	4.8	2.4	0.3	1.1	0.9	1.4	2.4	1.2	0.0	551
Gauteng	10.7	3.1	0.7	4.0	3.3	5.6	4.5	1.7	0.5	1,099
Mpumalanga	4.9	1.8	1.1	0.9	2.0	2.9	2.9	2.1	0.2	377
Northern	4.4	2.0	0.4	0.2	0.9	1.1	1.3	1.7	0.2	521
Education										
No education	11.6	4.8	2.8	0.3	2.9	4.3	5.4	5.8	0.2	562
Sub A - Std 3	7.2	2.6	0.9	0.4	2.7	4.4	5.7	5.0	0.0	777
Std 4 - Std 5	7.0	2.7	0.4	0.9	1.2	3.2	3.7	3.5	0.2	755
Std 6 - Std 9	6.4	2.1	0.6	1.0	2.3	3.9	2.6	2.2	0.2	2,297
Std 10	8.7	3.0	1.0	3.7	2.7	5.0	4.0	1.5	0.2	801
Higher	10.9	3.5	0.5	8.3	4.0	6.5	3.6	0.4	1.4	440
Ethnicity										
African	5.8	1.9	0.7	0.2	1.5	1.8	3.0	3.0	0.1	4,257
Afr. urban	6.9	1.7	0.5	0.2	1.6	1.5	3.0	2.8	0.2	2,375
Afr. non-urban	4.4	2.0	1.0	0.2	1.5	2.2	3.1	3.2	0.1	1,882
Coloured	9.0	2.9	0.9	1.3	3.1	8.6	4.5	4.5	0.3	637
White	21.1	8.6	1.6	12.4	6.0	16.5	7.7	0.7	1.4	564
Asian	11.9	8.0	1.5	8.4	8.5	6.4	5.5	2.4	0.0	195
Total	7.9	2.9	0.9	1.8	2.4	4.2	3.7	2.9	0.3	5,671

Note: Total includes 40 men with education level missing and 18 men with ethnic group missing.

Table 17.2 Self-reported chronic conditions—women

Percentage of female respondents age 15 and above who report that they have various chronic health conditions, according to background characteristics, South Africa 1998

Background characteristic	Chronic condition									Number of adults
	Blood pressure	Ischaemic heart disease	Stroke	Hyper-cholesterolaemia	Diabetes	Emphysema	Asthma	Tuberculosis	Cancer	
Age										
15-24	3.8	1.7	0.2	0.5	0.5	3.5	2.5	1.2	0.0	2,084
25-34	8.0	4.2	0.6	0.8	1.6	3.7	3.2	1.8	0.3	1,721
35-44	15.1	4.3	1.0	0.3	2.7	4.4	3.4	2.0	0.6	1,460
45-54	30.5	7.2	1.0	3.0	7.2	6.5	5.6	2.6	0.9	1,116
55-64	40.9	11.7	1.9	2.5	7.6	6.0	5.2	2.2	1.3	914
65+	42.2	14.7	2.6	2.8	8.9	7.6	5.1	3.1	1.7	861
Residence										
Urban	20.6	5.3	1.1	1.6	4.4	5.8	4.3	1.6	1.0	4,999
Non-urban	15.4	6.9	0.7	0.8	2.7	3.3	3.1	2.6	0.1	3,157
Province										
Western Cape	19.3	5.2	2.4	3.0	4.9	11.4	6.2	2.3	2.0	799
Eastern Cape	18.9	6.5	1.2	1.1	3.5	4.9	4.9	4.3	0.6	1,161
Northern Cape	22.8	5.2	0.9	1.1	2.9	5.5	3.3	2.9	0.4	168
Free State	20.4	7.7	0.8	0.0	2.3	0.3	2.7	1.9	0.3	519
KwaZulu Natal	20.7	7.0	1.1	1.0	5.9	3.1	4.5	1.8	0.4	1,608
North West	14.9	5.4	0.9	0.5	1.1	2.0	3.2	1.3	0.0	647
Gauteng	21.7	5.0	0.4	2.2	4.3	7.9	3.5	1.1	0.8	1,887
Mpumalanga	16.7	8.2	1.2	1.1	2.8	3.9	4.0	1.8	1.1	507
Northern	8.7	4.0	0.5	0.4	1.2	0.7	0.8	1.1	0.0	859
Education										
No education	27.0	11.1	1.6	0.7	6.8	3.1	4.1	2.8	0.3	1,186
Sub A - Std 3	25.6	9.1	1.5	0.5	3.5	4.0	4.9	3.5	0.4	1,088
Std 4 - Std 5	22.5	5.5	0.8	0.7	4.0	2.8	3.9	2.2	0.5	1,136
Std 6 - Std 9	15.6	4.8	0.6	1.6	3.2	4.4	3.3	1.6	0.6	3,094
Std 10	10.1	2.8	0.7	1.9	2.1	8.1	2.8	1.0	1.1	1,120
Higher	11.7	2.2	1.4	3.1	2.5	10.6	6.6	0.7	1.7	495
Population Group										
African	17.4	6.1	0.9	0.4	3.0	2.3	2.9	2.0	0.2	6,269
Afr. urban	19.9	5.4	0.9	0.3	3.7	2.6	3.1	1.5	0.3	3,349
Afr. non urban	14.6	6.9	0.8	0.4	2.2	1.9	2.7	2.5	0.1	2,92
Coloured	22.3	5.4	1.4	1.9	5.8	7.3	5.0	3.3	0.7	806
White	21.4	5.1	1.4	7.6	4.8	23.4	9.1	1.3	4.0	767
Asian	23.7	5.4	1.0	3.9	11.5	3.8	6.2	0.3	0.7	300
Total	18.6	5.9	1.0	1.3	3.7	4.8	3.8	2.0	0.6	8,156

C. Symptomatic Asthma and Chronic Bronchitis

The determination of the prevalence of these two conditions is based on the typical symptoms of asthma and chronic bronchitis and the data are shown in Table 18. Women more frequently than men and older persons rather than younger persons report symptoms of asthma and chronic bronchitis.

Surprisingly, the non-urban participants report these symptoms more frequently than their urban counterparts. In general the highest rates for asthma were reported in Northern Cape and KwaZulu-Natal Provinces, while for chronic bronchitis these two provinces along with Eastern Cape and Gauteng Provinces have the highest rates. For both conditions the Northern Province reported the lowest rates along with North West Province for chronic bronchitis in women. Low levels of education are strongly associated with high rates of both asthma and chronic bronchitis, but differences by ethnic group were reportedly small.

Table 18 Prevalence of symptomatic asthma and chronic bronchitis

Percentage of men and women age 15 and over who report various symptoms of asthma and chronic bronchitis, according to background characteristics, South Africa 1998

Background characteristic	Men			Women		
	Asthma ¹	Chronic bronchitis ²	Number of men	Asthma	Chronic bronchitis	Number of women
Age						
15-24	3.1	0.9	1,816	5.6	1.9	2,084
25-34	4.6	1.7	1,123	6.4	1.4	1,721
35-44	7.3	2.4	1,005	8.3	2.5	1,460
45-54	11.1	4.8	701	10.3	3.7	1,116
55-64	12.2	3.6	518	12.7	4.1	914
65+	11.1	4.3	507	14.2	5.6	861
Residence						
Urban	5.8	2.2	3,569	8.0	2.2	4,999
Non-urban	8.1	2.6	2,102	9.5	3.7	3,157
Province						
Western Cape	4.4	2.3	721	7.1	3.0	799
Eastern Cape	6.9	3.0	758	8.0	4.9	1,161
Northern Cape	10.3	5.1	135	9.1	2.5	168
Free State	6.4	1.6	444	6.8	2.1	519
KwaZulu Natal	10.0	2.8	1,064	13.5	3.6	1,608
North West	4.7	1.9	551	7.4	0.9	647
Gauteng	7.3	2.4	1,099	8.3	2.4	1,887
Mpumalanga	5.4	1.3	377	7.1	1.6	507
Northern	3.8	1.3	521	5.4	1.5	859
Education						
No education	13.9	5.1	562	15.7	5.6	1,186
Sub A - Std 3	11.5	3.7	777	13.0	4.5	1,088
Std 4 - Std 5	7.5	2.8	755	7.7	2.3	1,136
Std 6 - Std 9	4.3	1.4	2,297	6.3	2.1	3,094
Std 10	5.3	1.6	801	6.2	1.0	1,120
Higher	2.1	1.1	440	4.6	0.9	495
Population Group						
African	6.4	2.1	4,257	8.5	2.8	6,269
Afr. urban	5.7	1.8	2,375	7.5	2.1	3,349
Afr. non-urban	7.4	2.4	1,882	9.7	3.6	2,921
Coloured	6.2	3.6	637	8.1	2.8	806
White	8.5	2.8	564	8.1	2.9	767
Asian	8.9	2.9	195	12.5	0.7	300
Total³	6.7	2.3	5,671	8.6	2.8	8,156

Note: ¹Asthma refers to respondents who report wheezing and shortness of breath in the year prior to the survey and who also have their sleep interrupted by coughing, wheezing or a tight chest. ²Chronic bronchitis refers to those reporting a productive cough for at least 3 months a year during the two years prior to the survey. ³Total includes a small number of men and women not stated as to education and ethnic group.

D. Hypertension

Tables 19.1 and 19.2 show the prevalence of self-reported and measured hypertension as well as the treatment status that has been achieved in these patients. Eleven percent of men and 13 percent of women were found to either have a blood pressure above 160/95mmHg or were taking appropriate medication to lower their blood pressure. A calculation based on these prevalence rates and the census figures published for the South African population aged 15 years and older leads to an estimate of about 3.3 million hypertensive people in the country. As

expected, hypertension is more prevalent among older South Africans. The urban/non-urban differences were negligible, quite different from findings published 10 to 20 years ago which found that rural South Africans had much lower rates of hypertension than their urban counterparts. In this survey, the highest rates are found in the Free State and Northern Cape for men and the Northern Cape and North West Provinces for women. Mpumalanga and Northern Provinces had marked lower rates of hypertension than the other provinces. Although both tables show lower rates of hypertension in more educated people, this should be interpreted with care as the least educated sector of the South African population is also the oldest sector. For men, the highest rates are found in the white group, followed by the coloured and then the African and Asian groups, while for women, the highest rates are found in the coloured group, followed by the African, white and Asian groups.

Overall, fewer hypertensive men (9 percent) than women (23 percent) are aware of their condition. Similarly, fewer hypertensive men in non-urban areas know that they suffer from the condition than their urban counterparts. This highlights non-urban hypertensive males as the group with the most undiagnosed hypertension in the country and who need to be targeted to improve the diagnosis rate. This poor level of diagnoses in men is reflected in the low rates of men (11 percent compared to 28 percent of women) who take appropriate drugs for hypertension. Consequently, only 9 percent of all men with hypertension had controlled blood pressure (BP<160/95 mmHg), compared to 23 percent of hypertensive women. This is still a very low level of control and highlights the need to improve hypertension control in the country if premature death and disability are to be prevented.

A more disturbing finding is that the control of hypertension in young patients is far worse than that achieved in older hypertensive patients. These are the hypertensive patients who require good control even more than older patients to prevent end organ damage while they are still part of the labour force of the country. For men, the worst level of control was reported in the African group, while for women it was found in non-urban African women.

E. Body Mass Index

The body mass index (weight in kilograms divided by the square of height in metres) of South African men and women are shown in Tables 20.1 and Table 20.2. More than half the men are normal weight, with thirteen percent being underweight. The highest rates of underweight occur in men aged 15-24 years and men living in Northern Cape, Northern, and Free State Provinces. Men who have completed their schooling have lower rates of underweight, while Asian and non-urban African men have the highest rates. For women, only 37 percent are normal weight, while about 6 percent are underweight. Again, this is mostly in women aged 15-24 years, Asian women and women living in the Northern Cape.

Table 19.1 Hypertension prevalence and treatment status--men

Percentage of men age 15 and over who report having hypertension, percentage who are measured as being hypertensive and of those, the percentage who know that they are hypertensive, are taking appropriate medications, and have controlled blood pressure, according to background characteristics, South Africa 1998

Background characteristic	Reported hyper-tension	Measured hyper-tension	No. adults	Among those with hypertension			
				Percent who know	Take medica-tion	Have Controlled BP	No. with hyper-tension
Age							
15-24	0.2	2.7	1,816	(0.0)	(0.0)	(8.8)	48
25-34	2.7	5.1	1,123	10.5	1.8	4.9	57
35-44	7.5	12.2	1,005	19.8	3.4	5.7	123
45-54	18.0	19.7	701	36.9	11.6	8.8	138
55-64	16.9	22.2	518	34.9	15.5	6.6	115
65+	25.0	28.5	507	40.1	19.2	14.3	145
Residence							
Urban	9.3	11.5	3,569	32.8	12.6	8.9	409
Non-urban	5.5	10.3	2,102	20.7	7.1	8.3	216
Province							
Western Cape	9.2	10.9	721	30.1	14.9	11.2	79
Eastern Cape	9.0	12.5	758	34.4	9.4	10.3	95
Northern Cape	13.2	14.2	135	39.1	21.5	12.6	19
Free State	7.2	14.5	444	22.3	7.5	6.1	64
KwaZulu Natal	7.5	11.1	1,064	26.7	11.2	8.6	118
North West	4.8	11.8	551	14.9	7.6	8.9	65
Gauteng	10.7	11.7	1,099	38.7	12.3	6.2	129
Mpumalanga	4.9	6.2	377	(23.2)	(13.4)	(13.4)	23
Northern	4.4	6.4	521	(13.5)	(0.0)	(7.0)	33
Education							
No education	11.6	19.3	562	29.7	14.5	10.7	108
Sub A - Std 3	7.2	13.8	777	25.4	12.8	11.9	107
Std 4 - Std 5	7.0	8.0	755	20.4	10.8	9.7	61
Std 6 - Std 9	6.4	9.8	2,297	26.7	7.3	4.9	224
Std 10	8.7	9.9	801	33.8	9.8	9.3	79
Higher	10.9	8.4	440	(43.7)	(16.1)	(15.7)	37
Population Group							
African	5.8	10.3	4,257	23.3	9.1	7.9	438
Afr. urban	6.9	11.2	2,375	27.1	10.7	7.6	265
Afr. non-urban	4.4	9.2	1,882	17.5	6.6	8.3	173
Coloured	9.0	12.4	637	33.7	15.0	12.1	79
White	21.1	15.2	564	47.7	15.2	10.8	86
Asian	11.9	9.9	195	(41.5)	(10.4)	(5.2)	19
Total	7.9	11.0	5,671	28.6	10.7	8.7	625

Note: Measured hypertension refers to those with blood pressures greater than or equal to 160/95 mm Hg and those who are taking hypertension medication. Controlled blood pressure refers to those with blood pressures less than 160/95 mm Hg. Numbers in parentheses indicate a figure based on 25-49 unweighted cases.

Table 19.2 Hypertension prevalence and treatment status—women

Percentage of women age 15 and over who report having hypertension, percentage who are measured as being hypertensive and of those, the percentage who know that they are hypertensive, are taking appropriate medications, and have controlled blood pressure, according to background characteristics, South Africa 1998

Background characteristic	Reported hypertension	Measured hypertension	No. adults	Among those with hypertension			
				Percent who know	Take medication	Have Controlled BP	No. with hypertension
Age							
15-24	3.8	1.9	2,084	(6.7)	(0.0)	(6.4)	39
25-34	8.0	4.8	1,721	46.8	12.8	13.3	82
35-44	15.1	11.5	1,460	46.5	20.8	20.6	168
45-54	30.5	20.3	1,116	61.0	29.9	26.8	226
55-64	40.9	29.1	914	65.6	33.2	25.0	266
65+	42.2	34.3	861	60.3	32.9	24.4	295
Residence							
Urban	20.6	13.6	4,999	62.8	31.6	25.7	682
Non-urban	15.4	12.5	3,157	45.9	21.1	18.3	395
Province							
Western Cape	19.3	14.2	799	65.7	39.0	36.8	114
Eastern Cape	18.9	14.2	1,161	57.3	25.5	20.6	165
Northern Cape	22.8	17.0	168	64.8	35.3	26.2	29
Free State	20.4	15.5	519	61.7	32.9	25.0	80
KwaZulu Natal	20.7	14.7	1,608	55.7	24.0	16.7	237
North West	14.9	16.2	647	36.4	15.0	15.1	105
Gauteng	21.7	13.1	1,887	64.9	31.9	26.6	247
Mpumalanga	16.7	8.5	507	53.0	31.3	20.6	43
Northern	8.7	6.6	859	32.6	18.3	24.4	57
Education							
No education	27.0	22.8	1,186	53.5	26.2	19.9	271
Sub A - Std 3	25.6	19.7	1,088	59.5	31.0	25.1	214
Std 4 - Std 5	22.5	16.0	1,136	61.4	27.3	24.0	181
Std 6 - Std 9	15.6	10.3	3,094	58.1	31.4	27.2	320
Std 10	10.1	5.5	1,120	38.7	8.6	9.1	62
Higher	11.7	4.5	495	(64.1)	(26.1)	(13.0)	22
Population Group							
African	17.4	13.0	6,269	54.2	26.2	21.7	815
Afr. urban	19.9	14.0	3,349	61.4	30.4	24.4	467
Afr. non-urban	14.6	11.9	2,921	44.5	20.5	18.1	347
Coloured	22.3	17.1	806	62.2	34.2	29.9	138
White	21.4	12.0	767	65.3	34.6	27.5	92
Asian	23.7	9.3	300	(70.5)	(21.5)	(14.3)	28
Total	18.6	13.2	8,156	56.6	27.7	23.0	1,076

Note: Measured hypertension refers to those with blood pressures greater than or equal to 160/95 mm Hg and those who are taking hypertension medication. Controlled blood pressure refers to those with blood pressures less than 160/95 mm Hg. Numbers in parentheses indicate a figure based on 25-49 unweighted cases.

Approximately 28 percent of men and 55 percent of women are overweight or obese. In men, overweight and obesity occur more frequently in the urban setting than in the non-urban setting and most frequently in the Western Cape, Gauteng, Eastern Cape and KwaZulu-Natal. White men and the most educated men are the most overweight or obese of all men. For women, the overweight patterns do not differ much between urban and non-urban women, although urban women tend to be more obese. In Gauteng and KwaZulu-Natal, more than one-third of the women are obese, while Northern and North West Provinces have the lowest level of obesity. Women with the lowest level of education seem to be the most obese, although this might again be a function of age. The African urban women have the highest rate of obesity, while Asian women have the lowest rate. Obesity has been found in a number of studies in all ethnic groups to predict the development of hypertension and diabetes, conditions that contribute heavily to morbidity in adults. These findings suggest that the control of obesity should be a focus of community-based intervention programmes in South Africa.

Table 20.1 Body weight—men

Percent distribution of men age 15 and above by body mass index categories, according to background characteristics, South Africa, 1998

Background characteristic	Under-weight < 18.5	Normal 18.5-24.9	Over-weight 25-29.9	Obese 30+	Missing	Total	Number
Age							
15-24	21.1	66.7	8.3	2.7	1.2	100.0	1,816
25-34	8.4	61.7	20.4	7.6	1.9	100.0	1,123
35-44	8.4	52.0	24.5	12.6	2.5	100.0	1,005
45-54	8.9	43.8	27.2	16.7	3.5	100.0	701
55-64	9.0	46.7	27.9	14.2	2.3	100.0	518
65+	9.4	45.4	27.1	13.2	4.9	100.0	507
Residence							
Urban	10.6	54.2	21.7	10.9	2.7	100.0	3,569
Non-urban	16.2	60.5	15.4	6.2	1.7	100.0	2,102
Province							
Western Cape	5.7	54.1	24.8	12.8	2.6	100.0	721
Eastern Cape	11.4	57.0	20.3	9.9	1.5	100.0	758
Northern Cape	22.7	53.3	14.2	7.5	2.3	100.0	135
Free State	18.6	56.1	16.2	8.0	1.1	100.0	444
KwaZulu Natal	10.9	55.9	21.1	10.2	1.9	100.0	1,064
North West	17.3	60.6	15.2	5.4	1.6	100.0	551
Gauteng	9.3	56.4	20.4	9.8	4.0	100.0	1,099
Mpumalanga	16.4	57.4	16.1	7.2	3.0	100.0	377
Northern	19.4	57.1	15.8	6.1	1.5	100.0	521
Education							
No education	11.9	56.9	20.8	8.0	2.4	100.0	562
Sub A - Std 3	14.3	57.0	18.0	8.0	2.6	100.0	777
Std 4 - Std 5	15.7	57.8	17.3	7.3	1.9	100.0	755
Std 6 - Std 9	14.7	58.8	16.9	7.5	2.2	100.0	2,297
Std 10	5.6	57.5	21.7	13.1	2.1	100.0	801
Higher	6.9	40.7	32.7	17.3	2.3	100.0	440
Population Group							
African	13.7	59.9	16.9	7.7	1.8	100.0	4,257
Afr. urban	11.6	58.3	18.4	9.4	2.3	100.0	2,375
Afr. non-urban	16.5	61.9	14.9	5.4	1.3	100.0	1,882
Coloured	11.2	55.7	21.8	9.1	2.1	100.0	637
White	4.5	36.5	34.3	19.8	5.0	100.0	564
Asian	16.1	49.0	22.9	8.7	3.3	100.0	195
Total	12.6	56.5	19.4	9.1	2.3	100.0	5,671

Note: Total includes 40 men not stated as to education and 18 men not stated as to ethnic group

Table 20.2 Body weight–women

Percent distribution of women age 15 and above by body mass index categories, according to background characteristics, South Africa, 1998

Background characteristic	Under-weight <18.5	Normal 18.5-24.9	Over-weight 25-29.9	Obese 30+	Missing	Total	Number
Age							
15-24	9.3	59.5	19.6	9.4	2.1	100.0	2,084
25-34	4.9	37.4	28.5	26.3	2.8	100.0	1,721
35-44	2.7	26.7	30.2	38.7	1.7	100.0	1,460
45-54	3.6	23.3	25.8	44.3	3.0	100.0	1,116
55-64	2.7	25.1	25.1	45.1	2.1	100.0	914
65+	7.1	31.3	25.5	32.0	4.0	100.0	861
Residence							
Urban	4.9	34.8	25.4	32.4	2.4	100.0	4,999
Non-urban	6.3	40.9	25.6	24.5	2.6	100.0	3,157
Province							
Western Cape	4.8	37.3	25.6	30.8	1.5	100.0	799
Eastern Cape	5.7	37.7	25.0	28.9	2.7	100.0	1,161
Northern Cape	12.3	37.0	24.5	24.5	1.7	100.0	168
Free State	6.9	37.7	25.8	29.1	0.5	100.0	519
KwaZulu Natal	5.2	30.1	26.5	34.2	3.9	100.0	1,608
North West	8.1	46.5	25.6	18.8	1.1	100.0	647
Gauteng	3.3	33.4	26.0	34.7	2.5	100.0	1,887
Mpumalanga	4.8	43.2	24.6	25.4	2.0	100.0	507
Northern	7.0	47.0	23.2	19.4	3.4	100.0	859
Education							
No education	5.7	33.8	26.7	32.0	1.7	100.0	1,186
Sub A - Std 3	6.2	31.3	24.4	34.9	3.1	100.0	1,088
Std 4 - Std 5	4.6	32.4	27.2	32.3	3.5	100.0	1,136
Std 6 - Std 9	5.5	40.5	23.8	28.2	2.1	100.0	3,094
Std 10	6.1	38.0	29.4	24.2	2.3	100.0	1,120
Higher	3.9	47.3	22.5	22.4	3.8	100.0	495
Population Group							
African	4.8	37.0	25.4	30.5	2.3	100.0	6,269
Afr. urban	3.9	33.5	25.1	35.7	1.9	100.0	3,349
Afr. non-urban	5.9	41.0	25.8	24.6	2.7	100.0	2,921
Coloured	9.8	35.9	25.1	28.3	1.0	100.0	806
White	2.8	42.1	26.1	24.3	4.7	100.0	767
Asian	14.7	34.0	25.9	20.2	5.2	100.0	300
Total	5.5	37.2	25.5	29.4	2.5	100.0	8,156

Note: total includes 37 women not stated as to education and 14 not stated as to ethnic group.

F. Work-Related Illness and Injury

The proportion of working respondents who reported suffering from a work-related illness or injury is shown in Table 21. From the results in Table 2 and Table 21, it is calculated that 45 percent of men and 29 percent of women in the survey worked for payment during the previous year. These rates are much lower than those reported in the census of 1996 and suggest a biased sample of workers who could be traced at their homes and an under-representation of healthy workers who were at their places of employment. Of the workers who participated in the study, 9 percent of men and 5 percent of women reported that they suffered from a work-related illness or injury during the previous year. These are remarkably high figures and may in part be due to the above mentioned bias. The injuries and illnesses occurred more frequently among people resident in non-urban areas than urban areas. For men, work related illness and injury occurred more frequently in the least educated groups who probably were more involved in manual labour, compared to the better educated men. Men from non-urban African and coloured groups reported the highest rates.

Table 21 Prevalence of work-related illness and injury

Among working men and women age 15 and above, the prevalence of injury or work-related health problem in the 12 months preceding the survey, according to background characteristics, South Africa 1998

Background characteristic	Male		Female		Total	
	Percent injured	No. of working adults	Percent injured	No. of working adults	Percent injured	No. of working adults
Age						
15-24	8.7	422	5.1	354	7.1	776
25-34	10.3	686	4.9	668	7.6	1,354
35-44	8.4	690	2.9	700	5.6	1,390
45-54	10.9	462	8.5	421	9.7	883
55-64	8.9	223	6.7	193	7.9	416
65+	5.1	64	5.9	35	5.4	99
Residence						
Urban	7.6	1,780	4.8	1,776	6.2	3,557
Non-urban	13.4	766	6.1	594	10.2	1,361
Province						
Western Cape	9.9	439	6.3	381	8.2	820
Eastern Cape	8.1	241	4.2	208	6.3	449
Northern Cape	10.0	71	3.6	47	7.4	118
Free State	7.3	206	2.7	181	5.1	387
KwaZulu Natal	11.7	486	5.8	403	9.0	890
North West	3.7	254	1.6	185	2.8	439
Gauteng	10.8	507	6.0	698	8.0	1,205
Mpumalanga	7.4	193	6.6	121	7.1	314
Northern	12.3	150	4.0	145	8.2	295
Education						
No education	14.0	198	4.4	191	9.3	389
Sub A - Std 3	10.8	328	5.3	257	8.4	586
Std 4 - Std 5	12.6	294	6.7	296	9.6	590
Std 6 - Std 9	9.6	914	5.0	794	7.4	1,708
Std 10	7.4	479	4.5	537	5.9	1,016
Higher	4.0	319	5.4	276	4.6	595
Population Group						
African	8.7	1,627	4.3	1,498	6.6	3,125
Afr. urban	6.7	1,003	3.5	1,015	5.1	2,018
Afr. non-urban	11.8	624	6.0	483	9.3	1,107
Coloured	11.9	381	5.2	362	8.6	742
White	9.8	399	8.1	398	8.9	797
Asian	9.5	138	2.0	102	6.3	240
Total	9.4	2,547	5.1	2,371	7.3	4,918

Total includes cases not stated as to education and ethnic group

VI. CONCLUSIONS

The survey found an infant mortality rate of 45 deaths per 1000 live births for the period roughly from 1993 to 1997. The findings on infant mortality demonstrate that where socio-economic conditions are poorer, infant mortality is higher. As expected, infant mortality has begun to increase with the impact of the HIV/AIDS epidemic. Government initiatives on poverty alleviation and the focus on HIV/AIDS are timely interventions to improve the health status of all South Africans.

Clearly people have heard about HIV/AIDS in South Africa. However, this does not always translate into safe sexual behaviour as seen from the high rates of STD symptoms. Twelve percent of men interviewed reported having symptoms of an STD in the three months prior to the survey. The patterns suggest that the problem with STD infections is more major in certain communities; for example, the rate is 17 percent in non-urban areas. These findings support the need for greater partnerships and a strengthening of the government drive to prevent the further spread of HIV/AIDS.

Survey results suggest that fertility rates have been declining and that the total fertility rate is 2.9 children per woman for the period 1993-97. Even the provinces which previously had high fertility rates have experienced reductions such that the total fertility rate is now below 4 children per woman. This is consistent with increasing access to education (only 7 percent of women of reproductive age have no education) and an increase in contraceptive use.

There was almost universal knowledge of modern contraception among women interviewed and a relatively high use of modern contraception. But given the types of contraceptives most popular among women— injection, pills and female sterilisation—there is a clear need to promote the use of family planning methods which also encourage disease prevention, especially transmission of STDs and HIV.

Survey results show evidence of abuse against women. One in eight women reported that they had at some point been beaten by a partner. Data from other studies suggests that this may be an under-estimate of the true level, due to the sensitivity of the questions on this topic.

The survey reveals generally high levels of use of primary health care for women and children. For example, women receive antenatal care from a nurse or doctor for 94 percent of births. Most of the visits were to a nurse. Only 15 percent of births in the five years preceding the survey were delivered without medical assistance from either a nurse/midwife or doctor. Three-quarters of mothers of children under age five could produce a road-to-health card on request.

Of concern however, is the finding that the maternal mortality ratio remains high at 150 per 100,000 live births. It is hoped that the Confidential Enquiry into the Causes of Maternal Deaths in South Africa instituted by the Minister of Health in 1997 will provide more information on the factors which are still contributing to this high ratio and that the mechanisms to improve quality of care built into the confidential enquiry will contribute to a reduction in maternal mortality.

The age pattern of early childhood diarrhoeal disease observed in this survey is believed to be associated with increased exposure to the illness as a result of weaning, greater mobility of the child, as well as to the immature immune system of children age 6-23 months. Although strategies are in place to encourage women to give oral rehydration solutions to children with diarrhoea, the survey suggests a clear need to intensify health promotion campaigns in this area. Only 58 percent of the children who were reported to have had diarrhoea in the two weeks prior to the survey were given oral rehydration therapy and this was mostly commercial solutions.

The findings on immunisation coverage show that 63% of children aged 12-23 months were fully vaccinated against the major childhood diseases. The narrowing of the gap in coverage between the urban and non-urban areas is an important indicator of the success of the government's initiatives in primary health care. However, the study shows a relatively high dropout rate between the first and third doses of DPT and polio vaccines, indicating a need to increase campaigns to encourage mothers to complete the full course of basic immunisations for their children. It is important to understand the factors which impede full vaccination in order to further enrich

information and communication mechanisms.

Findings on breastfeeding are a cause for concern. Exclusive breast-feeding was found to be very low, even in the first 3 months of life, when only 10 percent of infants are given nothing but breast milk. While the policy on breastfeeding remains complex in the light of potential transmission of HIV/AIDS, this survey has highlighted the importance of providing mothers with information about benefits and risks of breastfeeding and the need for enabling environments to be created in support of breastfeeding.

The survey reveals variations in the levels of lung disease and hypertension among adults across the country. Seven percent of men and 9 percent of women age 15 and over report that they have symptoms of asthma, while 2 percent of men and 3 percent of women report having chronic bronchitis. Estimates imply that some 3.3 million adults in South Africa are hypertensive (11 percent of men and 13 percent of women) and that less than half of them are aware of it. Moreover, few hypertensives have their blood pressure under control - only 9 percent of men and 23 percent of women with hypertension. Hypertensive African men, especially those in non-urban areas, are seldom diagnosed, which points to a need to increase screening when they visit health services. The treatment status of hypertensives in South Africa suggests the need for improvement in the quality of care provided for adults with chronic conditions in South Africa. The overall pattern of conditions found in adults of 15 years and older shows a portion of the adult population that is directly affected by the health transition.

The lifestyle indicators that have been identified in this report suggest that, for men, the high rate of smoking needs intervention and for women, the high rates of overweight and obesity as well as high rates of smoking among coloured women are the primary areas of concern. The apparent drop in smoking rates are an important indication that the Department of Health's focussed strategies to reduce cigarette smoking are having an effect.

A major focus of government is the elimination of poverty and removing the inequalities in society. Although this preliminary report has not primarily focussed on issues pertaining to equity, it is clear that there are still large differences in health status between provinces, urban and non-urban areas, and population groups. These issues as well as more detailed analyses of disease trends remain to be explored more extensively in the final report.

This survey was undertaken as part of the Department of Health's drive to provide essential information in the context of its National Health Information System.

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